10541677

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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	APR 04	STN AnaVist, Version 1, to be discontinued
NEWS 3	APR 15	WPIDS, WPINDEX, and WPIX enhanced with new predefined hit display formats
NEWS 4	APR 28	EMBASE Controlled Term thesaurus enhanced
NEWS 5	APR 28	IMSRESEARCH reloaded with enhancements
NEWS 6	MAY 30	INPAFAMDB now available on STN for patent family searching
NEWS 7	MAY 30	DGENE, PCTGEN, and USGENE enhanced with new homology sequence search option
NEWS 8	JUN 06	EPFULL enhanced with 260,000 English abstracts
NEWS 9	JUN 06	KOREAPAT updated with 41,000 documents
NEWS 10	JUN 13	USPATFULL and USPAT2 updated with 11-character patent numbers for U.S. applications
NEWS 11	JUN 19	CAS REGISTRY includes selected substances from web-based collections
NEWS 12	JUN 25	CA/CAplus and USPAT databases updated with IPC reclassification data
NEWS 13	JUN 30	AEROSPACE enhanced with more than 1 million U.S. patent records
NEWS 14	JUN 30	EMBASE, EMBAL, and LEMBASE updated with additional options to display authors and affiliated organizations
NEWS 15	JUN 30	STN on the Web enhanced with new STN AnaVist Assistant and BLAST plug-in
NEWS 16	JUN 30	STN AnaVist enhanced with database content from EPFULL
NEWS 17	JUL 28	CA/CAplus patent coverage enhanced
NEWS 18	JUL 28	EPFULL enhanced with additional legal status information from the epoline Register
NEWS 19	JUL 28	IFICDB, IFIPAT, and IFIUDB reloaded with enhancements
NEWS 20	JUL 28	STN Viewer performance improved
NEWS 21	AUG 01	INPADOCDB and INPAFAMDB coverage enhanced
NEWS 22	AUG 13	CA/CAplus enhanced with printed Chemical Abstracts page images from 1967-1998
NEWS 23	AUG 15	CAOLD to be discontinued on December 31, 2008
NEWS 24	AUG 15	CAplus currency for Korean patents enhanced
NEWS 25	AUG 25	CA/CAplus, CASREACT, and IFI and USPAT databases enhanced for more flexible patent number searching
NEWS 26	AUG 27	CAS definition of basic patents expanded to ensure comprehensive access to substance and sequence

Updated Search

information

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8

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* * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 17:34:33 ON 05 SEP 2008

=> file reg
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 0.21 0.21

FILE 'REGISTRY' ENTERED AT 17:35:00 ON 05 SEP 2008
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STRUCTURE FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4
DICTIONARY FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

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Uploading C:\Documents and Settings\brobinson1\My Documents\aerrt.str

L1 STRUCTURE UPLOADED

Updated Search

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SAMPLE SCREEN SEARCH COMPLETED -   451019 TO ITERATE

  0.4% PROCESSED     2000 ITERATIONS                                0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE   **INCOMPLETE**
                        BATCH    **INCOMPLETE**
PROJECTED ITERATIONS:      8981978 TO  9058782
PROJECTED ANSWERS:               0 TO        0

L2            0 SEA SSS SAM L1

=>
Uploading C:\Documents and Settings\brobinson1\My Documents\aeraty.str

L3      STRUCTURE UPLOADED

=> s l3
SAMPLE SEARCH INITIATED 17:42:37 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -    79510 TO ITERATE

  2.5% PROCESSED     2000 ITERATIONS                                1 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

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                        BATCH    **INCOMPLETE**
PROJECTED ITERATIONS:      1573419 TO  1606981
PROJECTED ANSWERS:             417 TO     1173

L4            1 SEA SSS SAM L3

=>
Uploading C:\Documents and Settings\brobinson1\My Documents\aertg.str

L5      STRUCTURE UPLOADED

=> s l5
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SAMPLE SCREEN SEARCH COMPLETED -     1257 TO ITERATE

100.0% PROCESSED     1257 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE   **COMPLETE**
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PROJECTED ANSWERS:               0 TO        0

L6            0 SEA SSS SAM L5

=> s l5 full
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10541677

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
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FULL SCREEN SEARCH COMPLETED - 25767 TO ITERATE

100.0% PROCESSED 25767 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

L7 1 SEA SSS FUL L5

=> file hcaplus
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	184.80	185.01

FILE 'HCAPLUS' ENTERED AT 17:44:04 ON 05 SEP 2008
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FILE COVERS 1907 - 5 Sep 2008 VOL 149 ISS 11
FILE LAST UPDATED: 4 Sep 2008 (20080904/ED)

HCAplus now includes complete International Patent Classification (IPC)
reclassification data for the second quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> s l7
L8 1 L7

=> d l8, ibib abs hitstr, 1

L8 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:606465 HCAPLUS
DOCUMENT NUMBER: 141:157037
TITLE: Preparation of pyridine derivatives useful for inhibiting sodium/calcium exchange system
INVENTOR(S): Otsomaa, Leena; Koskelainen, Tuula; Karjalainen, Arto; Rasku, Sirpa; Pollesello, Piero; Levijoki, Jouko
PATENT ASSIGNEE(S): Orion Corporation, Finland
SOURCE: PCT Int. Appl., 108 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ				
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CA 2512184	A1	20040729	CA 2004-2512184	20040109
EP 1583759	A1	20051012	EP 2004-701023	20040109
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2004006669	A	20051220	BR 2004-6669	20040109
CN 1745078	A	20060308	CN 2004-80003357	20040109
JP 2006516271	T	20060629	JP 2006-500151	20040109
NZ 541087	A	20080430	NZ 2004-541087	20040109
IN 2005KN01287	A	20061027	IN 2005-KN1287	20050701
MX 2005PA07435	A	20050912	MX 2005-PA7435	20050708
NO 2005003730	A	20051007	NO 2005-3730	20050803
US 20060241147	A1	20061026	US 2005-541677	20051028
ZA 2005005461	A	20060329	ZA 2005-5461	20060124

PRIORITY APPLN. INFO.: FI 2003-30 A 20030109
WO 2004-FI11 W 20040109
OTHER SOURCE(S): MARPAT 141:157037
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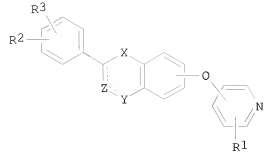

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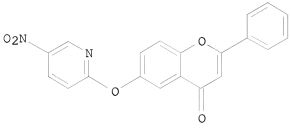


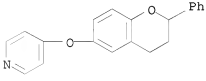
II

AB Title compds. I [X = O, CH2, CO; Z = divalent alkyl, bond; Y = CH2, CO, divalent alkyl, etc.; R2-3 = H, alkyl, alkoxy, etc.; R1 = H, CN, halo, etc. with provisos] are prepared For instance, II is prepared from 2-chloro-5-nitropyridine and 6-hydroxyflavone (DMF, 120°, 30 min). I are potent inhibitors of Na+/Ca2+ exchange mechanism.

IT 728937-39-1P, 4-(2-Phenylchroman-6-yloxy)pyridine
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of pyridine derivs. useful for inhibiting sodium/calcium exchange system)

RN 728937-39-1 HCAPLUS

CN Pyridine, 4-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]- (CA INDEX NAME)



=> file caold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	8.14	193.15

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)       SINCE FILE      TOTAL
                                                    ENTRY    SESSION
CA SUBSCRIBER PRICE                                 -0.80      -0.80

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FILE COVERS 1907-1966
FILE LAST UPDATED:  01 May 1997 (19970501/UP)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.  Title keywords, authors, patent
  assignees, and patent information, e.g., patent numbers, are
  now searchable from 1907-1966.  TIFF images of CA abstracts
  printed between 1907-1966 are available in the PAGE
  display formats.

  New CAS Information Use Policies, enter HELP USAGETERMS for details.

  This file supports REGlstRY for direct browsing and searching of
  all substance data from the REGISTRY file.  Enter HELP FIRST for
  more information.

  CAOLD will be discontinued and removed from associated database
  clusters.

    . November 22, 2008 - removed from database clusters
    . December 31, 2008 - removed from STN

  Content previously available only in CAOLD is now available
  in CA/CAplus.  To learn more about the options available for
  transferring saved search queries and answer sets to CA/CAplus,
  contact your STN Service Center.

=> d his

     (FILE 'HOME' ENTERED AT 17:34:33 ON 05 SEP 2008)

     FILE 'REGISTRY' ENTERED AT 17:35:00 ON 05 SEP 2008
L1             STRUCTURE UPLOADED
L2           0 S L1
L3             STRUCTURE UPLOADED
L4           1 S L3
L5             STRUCTURE UPLOADED
L6           0 S L5
L7           1 S L5 FULL

     FILE 'HCAPLUS' ENTERED AT 17:44:04 ON 05 SEP 2008
L8           1 S L7

     FILE 'CAOLD' ENTERED AT 17:44:14 ON 05 SEP 2008

=> s 17
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10541677

L9 0 L7

=> file reg
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 0.46 193.61

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE ENTRY TOTAL SESSION
CA SUBSCRIBER PRICE 0.00 -0.80

FILE 'REGISTRY' ENTERED AT 17:44:20 ON 05 SEP 2008
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STRUCTURE FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4
DICTIONARY FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when
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REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Documents and Settings\brobinson1\My Documents\artgy.str

L10 STRUCTURE UPLOADED

=> d l10
L10 HAS NO ANSWERS
L10 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s l10
SAMPLE SEARCH INITIATED 17:45:42 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 761 TO ITERATE

100.0% PROCESSED 761 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

Updated Search

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FULL FILE PROJECTIONS:  ONLINE   **COMPLETE**
                        BATCH    **COMPLETE**
PROJECTED ITERATIONS:         13565 TO    16875
PROJECTED ANSWERS:                0 TO        0

L11           0 SEA SSS SAM L10

=> s l10 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 17:45:46 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    14329 TO ITERATE

100.0% PROCESSED    14329 ITERATIONS                                 1 ANSWERS
SEARCH TIME: 00.00.01

L12           1 SEA SSS FUL L10

=> d his

     (FILE 'HOME' ENTERED AT 17:34:33 ON 05 SEP 2008)

     FILE 'REGISTRY' ENTERED AT 17:35:00 ON 05 SEP 2008
L1               STRUCTURE UPLOADED
L2            0 S L1
L3               STRUCTURE UPLOADED
L4            1 S L3
L5               STRUCTURE UPLOADED
L6            0 S L5
L7            1 S L5 FULL

     FILE 'HCAPLUS' ENTERED AT 17:44:04 ON 05 SEP 2008
L8            1 S L7

     FILE 'CAOLD' ENTERED AT 17:44:14 ON 05 SEP 2008
L9            0 S L7

     FILE 'REGISTRY' ENTERED AT 17:44:20 ON 05 SEP 2008
L10              STRUCTURE UPLOADED
L11           0 S L10
L12           1 S L10 FULL

=> s l12 not l7
L13           1 L12 NOT L7

=> file hcaplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                              179.28     372.89

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)    SINCE FILE      TOTAL
                                                 ENTRY    SESSION
CA SUBSCRIBER PRICE                                0.00      -0.80

FILE 'HCAPLUS' ENTERED AT 17:45:55 ON 05 SEP 2008
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FILE COVERS 1907 - 5 Sep 2008 VOL 149 ISS 11
FILE LAST UPDATED: 4 Sep 2008 (20080904/ED)

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l13
L14 1 L13

=> d l14, ibib abs hitstr, 1

L14 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:606465 HCAPLUS
DOCUMENT NUMBER: 141:157037
TITLE: Preparation of pyridine derivatives useful for inhibiting sodium/calcium exchange system
INVENTOR(S): Otsomaa, Leena; Koskelainen, Tuula; Karjalainen, Arto; Rasku, Sirpa; Pollesello, Piero; Levijoki, Jouko
PATENT ASSIGNEE(S): Orion Corporation, Finland
SOURCE: PCT Int. Appl., 108 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004063191	A1	20040729	WO 2004-FI11	20040109
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ				
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EP 1583759	A1	20051012	EP 2004-701023	20040109

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

BR	2004006669	A	20051220	BR	2004-6669		20040109
CN	1745078	A	20060308	CN	2004-80003357		20040109
JP	2006516271	T	20060629	JP	2006-500151		20040109
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NO	2005003730	A	20051007	NO	2005-3730		20050803
US	20060241147	A1	20061026	US	2005-541677		20051028
ZA	2005005461	A	20060329	ZA	2005-5461		20060124
PRIORITY APPLN. INFO.:				FI	2003-30	A	20030109
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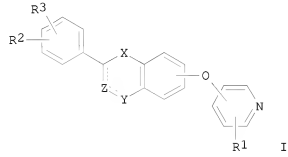
OTHER SOURCE(S): MARPAT 141:157037

GI



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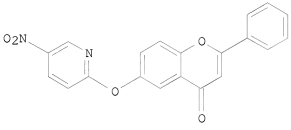
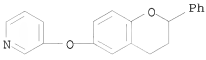


II

AB Title compds. I [X = O, CH2, CO; Z = divalent alkyl, bond; Y = CH2, CO, divalent alkyl, etc.; R2-3 = H, alkyl, alkoxy, etc.; R1 = H, CN, halo, etc. with provisos] are prepared For instance, II is prepared from 2-chloro-5-nitropyridine and 6-hydroxyflavone (DMF, 120°, 30 min). I are potent inhibitors of Na+/Ca2+ exchange mechanism.

IT 728937-59-5P, 3-((2-Phenylchroman-6-yl)oxy)pyridine
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of pyridine derivs. useful for inhibiting sodium/calcium exchange system)

RN 728937-59-5 HCAPLUS
CN Pyridine, 3-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]- (CA INDEX NAME)



=> file caold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	8.14	381.03

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.80	-1.60

FILE 'CAOLD' ENTERED AT 17:46:05 ON 05 SEP 2008
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FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file supports REGistRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

CAOLD will be discontinued and removed from associated database clusters.

- November 22, 2008 - removed from database clusters
- December 31, 2008 - removed from STN

Content previously available only in CAOLD is now available in CA/CAplus. To learn more about the options available for transferring saved search queries and answer sets to CA/CAplus, contact your STN Service Center.

=> d his

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     (FILE 'HOME' ENTERED AT 17:34:33 ON 05 SEP 2008)

     FILE 'REGISTRY' ENTERED AT 17:35:00 ON 05 SEP 2008
L1                STRUCTURE UPLOADED
L2            0 S L1
L3                STRUCTURE UPLOADED
L4            1 S L3
L5                STRUCTURE UPLOADED
L6            0 S L5
L7            1 S L5 FULL

     FILE 'HCAPLUS' ENTERED AT 17:44:04 ON 05 SEP 2008
L8            1 S L7

     FILE 'CAOLD' ENTERED AT 17:44:14 ON 05 SEP 2008
L9            0 S L7

     FILE 'REGISTRY' ENTERED AT 17:44:20 ON 05 SEP 2008
L10               STRUCTURE UPLOADED
L11           0 S L10
L12           1 S L10 FULL
L13           1 S L12 NOT L7

     FILE 'HCAPLUS' ENTERED AT 17:45:55 ON 05 SEP 2008
L14           1 S L13

     FILE 'CAOLD' ENTERED AT 17:46:05 ON 05 SEP 2008

=> s l13
L15           0 L13

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.46     381.49

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE                                     0.00      -1.60

FILE 'REGISTRY' ENTERED AT 17:46:11 ON 05 SEP 2008
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:    4 SEP 2008  HIGHEST RN 1046534-52-4
DICTIONARY FILE UPDATES:   4 SEP 2008  HIGHEST RN 1046534-52-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

  Please note that search-term pricing does apply when
```

conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

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L16 STRUCTURE UPLOADED

=> s l16
SAMPLE SEARCH INITIATED 17:47:40 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 2931 TO ITERATE

68.2% PROCESSED 2000 ITERATIONS 14 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 55373 TO 61867
PROJECTED ANSWERS: 139 TO 681

L17 14 SEA SSS SAM L16

=> s l16 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 17:47:45 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 59594 TO ITERATE

100.0% PROCESSED 59594 ITERATIONS 232 ANSWERS
SEARCH TIME: 00.00.01

L18 232 SEA SSS FUL L16

=> file hcaplus
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 179.28 560.77

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE ENTRY TOTAL SESSION
CA SUBSCRIBER PRICE 0.00 -1.60

FILE 'HCAPLUS' ENTERED AT 17:47:49 ON 05 SEP 2008
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FILE COVERS 1907 - 5 Sep 2008 VOL 149 ISS 11
FILE LAST UPDATED: 4 Sep 2008 (20080904/ED)

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

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=> s l18
L19 2 L18

=> s l19 and otsomaa, l?/au
5 OTSOMAA, L?/AU
L20 2 L19 AND OTSOMAA, L?/AU

=> d l20, ibib abs hitstr, 1-2

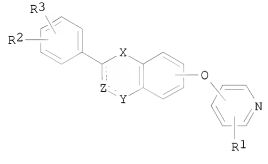
L20 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:606465 HCAPLUS
DOCUMENT NUMBER: 141:157037
TITLE: Preparation of pyridine derivatives useful for inhibiting sodium/calcium exchange system
INVENTOR(S): Otsomaa, Leena; Koskelainen, Tuula; Karjalainen, Arto; Rasku, Sirpa; Pollesello, Piero; Levijoki, Jouko
PATENT ASSIGNEE(S): Orion Corporation, Finland
SOURCE: PCT Int. Appl., 108 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004063191	A1	20040729	WO 2004-FI11	20040109
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ				
AU 2004203943	A1	20040729	AU 2004-203943	20040109
CA 2512184	A1	20040729	CA 2004-2512184	20040109
EP 1583759	A1	20051012	EP 2004-701023	20040109
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

	IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR	2004006669	A	20051220	BR 2004-6669	20040109
CN	1745078	A	20060308	CN 2004-80003357	20040109
JP	2006516271	T	20060629	JP 2006-500151	20040109
NZ	541087	A	20080430	NZ 2004-541087	20040109
IN	2005KN01287	A	20061027	IN 2005-KN1287	20050701
MX	2005PA07435	A	20050912	MX 2005-PA7435	20050708
NO	2005003730	A	20051007	NO 2005-3730	20050803
US	20060241147	A1	20061026	US 2005-541677	20051028
ZA	2005005461	A	20060329	ZA 2005-5461	20060124
PRIORITY APPLN. INFO.:				FI 2003-30 A	20030109
				WO 2004-FI11 W	20040109

OTHER SOURCE(S): MARPAT 141:157037

GI



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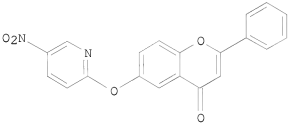


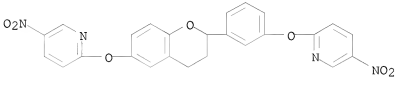
II

AB Title compds. I [X = O, CH2, CO; Z = divalent alkyl, bond; Y = CH2, CO, divalent alkyl, etc.; R2-3 = H, alkyl, alkoxy, etc.; R1 = H, CN, halo, etc. with provisos] are prepared For instance, II is prepared from 2-chloro-5-nitropyridine and 6-hydroxyflavone (DMF, 120°, 30 min). I are potent inhibitors of Na+/Ca2+ exchange mechanism.

IT 728934-90-5P, 2-[2-[3-((5-Nitropyridin-2-yl)oxy)phenyl]chroman-6-yloxy]-5-nitropyridine 728935-16-8P, 5-Nitro-2-[2-(3-benzyloxyphenyl)chroman-6-yloxy]pyridine 728935-24-8P, 6-((5-Nitropyridin-2-yl)oxy)-2-[4-((5-nitropyridin-2-yl)oxy)phenyl]chroman-4-ol 728935-38-4P, 3-[6-((5-Aminopyridin-2-yl)oxy)chroman-2-yl]phenol 728936-48-9P, 2-Chloro-N-[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]acetamide 728936-80-9P, 2-(3-Hydroxypiperidin-

1-yl)-N-[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]acetamide hydrochloride 728937-13-1P, N-[6-[2-(3-Hydroxyphenyl)chroman-6-yloxy]pyridin-3-yl]methanesulfonamide 728937-42-6P, 6-(2-Phenylchroman-6-yloxy)nicotinamide 728937-53-9P, 6-(2-Phenylchroman-6-yloxy)nicotinic acid
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of pyridine derivs. useful for inhibiting sodium/calcium exchange system)

RN 728934-90-5 HCAPLUS
CN Pyridine, 2-[3-[3,4-dihydro-6-[(5-nitro-2-pyridinyl)oxy]-2H-1-benzopyran-2-yl]phenoxy]-5-nitro- (CA INDEX NAME)



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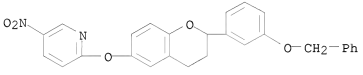
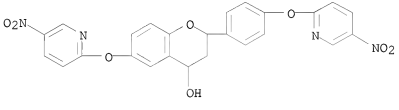
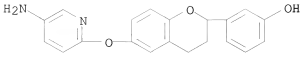


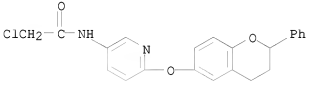
RN 728935-24-8 HCAPLUS
CN 2H-1-Benzopyran-4-ol, 3,4-dihydro-6-[(5-nitro-2-pyridinyl)oxy]-2-[4-[(5-nitro-2-pyridinyl)oxy]phenyl]- (CA INDEX NAME)



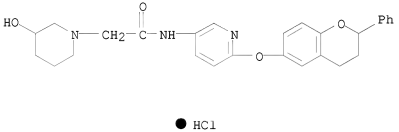
RN 728935-38-4 HCAPLUS
CN Phenol, 3-[6-[(5-amino-2-pyridinyl)oxy]-3,4-dihydro-2H-1-benzopyran-2-yl]- (CA INDEX NAME)



RN 728936-48-9 HCAPLUS
CN Acetamide, 2-chloro-N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]- (CA INDEX NAME)

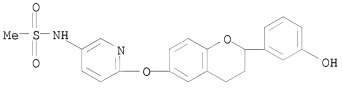


RN 728936-80-9 HCAPLUS
CN 1-Piperidineacetamide, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-3-hydroxy-, hydrochloride (1:1) (CA INDEX NAME)

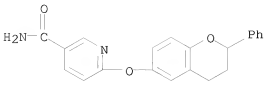


● HCl

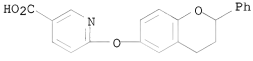
RN 728937-13-1 HCAPLUS
CN Methanesulfonamide, N-[6-[[3,4-dihydro-2-(3-hydroxyphenyl)-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]- (CA INDEX NAME)



RN 728937-42-6 HCAPLUS
CN 3-Pyridinecarboxamide, 6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]- (CA INDEX NAME)



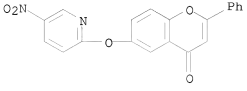
RN 728937-53-9 HCAPLUS
CN 3-Pyridinecarboxylic acid, 6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]- (CA INDEX NAME)



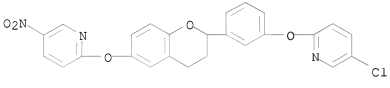
IT 728934-88-1P, 6-(5-Nitropyridin-2-yloxy)-2-phenylchromen-4-one
728935-18-0P, 5-Nitro-2-[2-[3-((5-chloropyridin-2-yl)oxy)phenyl]chroman-6-yloxy]pyridine 728935-20-4P, 5-Nitro-2-[2-[3-((pyridin-2-yl)oxy)phenyl]chroman-6-yloxy]pyridine 728935-22-6P, 6-((5-Nitropyridin-2-yl)oxy)-2-[3-((5-nitropyridin-2-yl)oxy)phenyl]chroman-4-ol 728935-27-1P, 2-[2-[4-((5-Nitropyridin-2-yl)oxy)phenyl]chroman-6-yloxy]-5-nitropyridine 728935-30-6P, 6-[2-[3-((5-Aminopyridin-2-yl)oxy)phenyl]chroman-6-yloxy]pyridin-3-ylamine dihydrochloride 728935-34-0P, 6-[2-(3-Benzyloxyphenyl)chroman-6-yloxy]pyridin-3-ylamine hydrochloride 728935-37-3P, 6-((5-Aminopyridin-2-yl)oxy)-2-[3-((5-aminopyridin-2-yl)oxy)phenyl]chroman-4-ol dihydrochloride 728935-40-8P, 2-Acetylamino-N-[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]acetamide 728935-42-0P, Piperidine-4-carboxylic acid N-[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]amide 728935-52-2P 728935-54-4P 728935-60-2P 728935-62-4P 728935-68-0P 728935-89-5P 728935-91-9P 728935-94-2P 728935-96-4P 728935-98-6P 728936-00-3P 728936-06-9P 728936-08-1P 728936-13-8P 728936-19-4P 728936-21-8P 728936-28-5P 728936-30-9P 728936-36-5P 728936-41-2P, N-[6-[2-(4-Fluorophenyl)chroman-6-yloxy]pyridin-3-yl]-4-(4-methylpiperazin-1-ylmethyl)benzamide 728936-45-6P, N-[6-(2-Phenylchroman-6-yloxy)pyridin-3-yl]succinamic acid 728936-50-3P, 2-Chloro-N-[6-[2-(4-fluorophenyl)chroman-6-yloxy]pyridin-3-yl]acetamide 728936-53-6P, 2-Amino-N-[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]acetamide hydrochloride 728936-60-5P, 2-Amino-N-[6-[2-(4-fluorophenyl)chroman-6-yloxy]pyridin-3-yl]acetamide 728936-62-7P , N-[6-(2-Phenylchroman-6-yloxy)pyridin-3-yl]-2-(4-phenylpiperazin-1-yl)acetamide dihydrochloride 728936-64-9P, 2-(4-Methylpiperazin-1-yl)-N-[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]acetamide dihydrochloride 728936-66-1P, N-[6-(2-Phenylchroman-6-yloxy)pyridin-3-yl]-2-piperazin-1-ylacetamide dihydrochloride 728936-68-3P, 2-(Morpholin-4-yl)-N-[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]acetamide dihydrochloride 728936-70-7P, N-[6-(2-Phenylchroman-6-yloxy)pyridin-3-yl]-2-(thiomorpholin-4-yl)acetamide dihydrochloride 728936-72-9P, N-[6-(2-Phenylchroman-6-yloxy)pyridin-3-yl]-2-

(pyrrolidin-1-yl)acetamide dihydrochloride 728936-74-1P, 2-(2,5-Dimethylpyrrolidin-1-yl)-N-[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]acetamide 728936-76-3P, N-[6-(2-Phenylchroman-6-yloxy)pyridin-3-yl]-2-(piperidin-1-yl)acetamide hydrochloride 728936-78-5P, 2-(4-Hydroxypiperidin-1-yl)-N-[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]acetamide hydrochloride 728936-82-1P, 2-(3-Hydroxypyrrolidin-1-yl)-N-[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]acetamide hydrochloride 728936-84-3P, 1-[[[6-(2-Phenylchroman-6-yloxy)pyridin-3-yl]carbamoyl]methyl]piperidine-4-carboxylic acid ethyl ester hydrochloride 728936-86-5P, 2-Diethylamino-N-[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]acetamide hydrochloride 728936-88-7P, 2-Dimethylamino-N-[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]acetamide hydrochloride 728936-90-1P, 2-[Bis(2-hydroxyethyl)amino]-N-[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]acetamide 728936-92-3P, [6-(2-Phenylchroman-6-yloxy)pyridin-3-yl](2-(pyrrolidin-1-yl)ethyl)amine hydrochloride 728936-96-7P, N-Ethyl-N'-[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]ethane-1,2-diamine dihydrochloride 728936-98-9P, N-[6-(2-Phenylchroman-6-yloxy)pyridin-3-yl]ethane-1,2-diamine dihydrochloride 728937-00-6P, N,N-Diethyl-N'-[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]ethane-1,2-diamine dihydrochloride 728937-02-8P, N,N-Dimethyl-N'-[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]ethane-1,2-diamine dihydrochloride 728937-04-0P, N-[6-[2-[3-[[5-[(Methanesulfonyl)amino]pyridin-2-yl]oxy]phenyl]chroman-6-yloxy]pyridin-3-yl]methanesulfonamide 728937-09-5P, 6-[[5-[(Methanesulfonyl)amino]pyridin-6-yl]oxy]-2-[3-[[5-[(methanesulfonyl)amino]pyridin-6-yl]oxy]phenyl]chroman-4-ol 728937-11-9P, N-[6-[2-(3-Benzyloxyphenyl)chroman-6-yloxy]pyridin-3-yl]methanesulfonamide 728937-15-3P, N-[6-[2-[3-((5-Nitropyridin-2-yl)oxy)phenyl]chroman-6-yloxy]pyridin-3-yl]methanesulfonamide 728937-17-5P, (5-Nitropyridin-2-yl)[6-[2-[3-(5-nitropyridin-2-yloxy)phenyl]chroman-6-yloxy]pyridin-3-yl]amine 728937-19-7P, N-[6-[2-[3-[[5-[(Acetyl)amino]pyridin-6-yl]oxy]phenyl]chroman-6-yloxy]pyridin-3-yl]acetamide 728937-21-1P, N-[6-[2-[3-((5-Nitropyridin-2-yl)oxy)phenyl]chroman-6-yloxy]pyridin-3-yl]acetamide 728937-25-5P, N-Methyl-N'-[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]guanidine 728937-27-7P, Dimethyl[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]amine 728937-29-9P, Dimethyl[2-(2-phenylchroman-6-yloxy)pyridin-4-yl]amine hydrochloride 728937-31-3P, 5-Chloro-2-(2-phenylchroman-6-yloxy)pyridine 728937-33-5P, 2-[2-[3-((5-Chloropyridin-2-yl)oxy)phenyl]chroman-6-yloxy]-5-chloropyridine 728937-35-7P, 2-(2-Phenylchroman-6-yloxy)pyridine 728937-37-9P, 2-[2-[3-(Pyridin-2-yloxy)phenyl]chroman-6-yloxy]pyridine 728937-44-8P, 6-[2-[3-((5-(Carbamoyl)pyridin-2-yl)oxy)phenyl]chroman-6-yloxy]nicotinamide 728937-46-0P, [[6-(2-Phenylchroman-6-yloxy)pyridin-3-yl]methyl]amine hydrochloride 728937-48-2P, Dimethyl[[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]methyl]amine 728937-51-7P, 6-(2-Phenylchroman-6-yloxy)nicotinic acid methyl ester 728937-55-1P, 6-(2-Phenylchroman-6-yloxy)nicotinonitrile 728937-57-3P, 6-[2-[3-((5-Cyanopyridin-2-yl)oxy)phenyl]chroman-6-yloxy]nicotinonitrile
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of pyridine derivs. useful for inhibiting sodium/calcium exchange system)

RN 728934-88-1 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[(5-nitro-2-pyridinyl)oxy]-2-phenyl- (CA INDEX NAME)



RN 728935-18-0 HCAPLUS
CN Pyridine, 5-chloro-2-[3-[3,4-dihydro-6-[(5-nitro-2-pyridinyl)oxy]-2H-1-benzopyran-2-yl]phenoxy]- (CA INDEX NAME)



RN 728935-20-4 HCAPLUS
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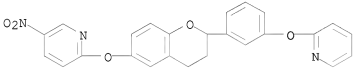
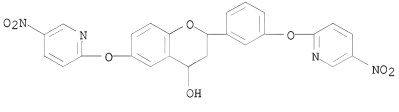


RN 728935-22-6 HCAPLUS
CN 2H-1-Benzopyran-4-ol, 3,4-dihydro-6-[(5-nitro-2-pyridinyl)oxy]-2-[3-[(5-nitro-2-pyridinyl)oxy]phenyl]- (CA INDEX NAME)



RN 728935-27-1 HCAPLUS
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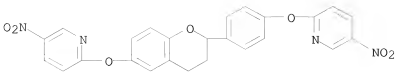
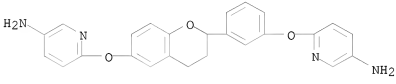
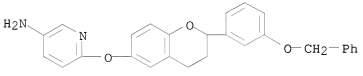


RN 728935-30-6 HCAPLUS
CN 3-Pyridinamine, 6-[3-[6-[(5-amino-2-pyridinyl)oxy]-3,4-dihydro-2H-1-benzopyran-2-yl]phenoxy]-, dihydrochloride (9CI) (CA INDEX NAME)



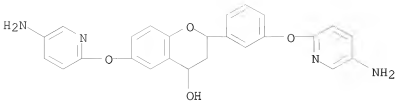
● 2 HCl

RN 728935-34-0 HCAPLUS
CN 3-Pyridinamine, 6-[[3,4-dihydro-2-[3-(phenylmethoxy)phenyl]-2H-1-benzopyran-6-yl]oxy]-, hydrochloride (1:1) (CA INDEX NAME)



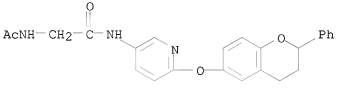
● HCl

RN 728935-37-3 HCAPLUS
CN 2H-1-Benzopyran-4-ol, 6-[(5-amino-2-pyridinyl)oxy]-2-[3-[(5-amino-2-pyridinyl)oxy]phenyl]-3,4-dihydro-, hydrochloride (1:2) (CA INDEX NAME)

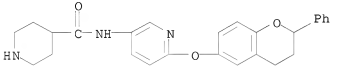


●2 HCl

RN 728935-40-8 HCAPLUS
CN Acetamide, 2-(acetylamino)-N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]- (CA INDEX NAME)

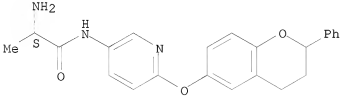


RN 728935-42-0 HCAPLUS
CN 4-Piperidinecarboxamide, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]- (CA INDEX NAME)



RN 728935-52-2 HCAPLUS
CN Propanamide, 2-amino-N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-, hydrochloride (1:1), (2S)- (CA INDEX NAME)

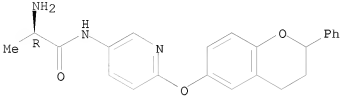
Absolute stereochemistry.



● HCl

RN 728935-54-4 HCAPLUS
CN Propanamide, 2-amino-N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

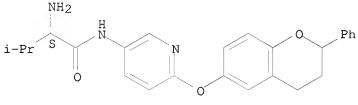
Absolute stereochemistry.



● HCl

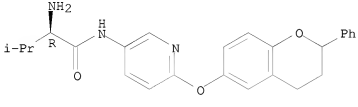
RN 728935-60-2 HCAPLUS
CN Butanamide, 2-amino-N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-3-methyl-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 728935-62-4 HCAPLUS
CN Butanamide, 2-amino-N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-3-methyl-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.



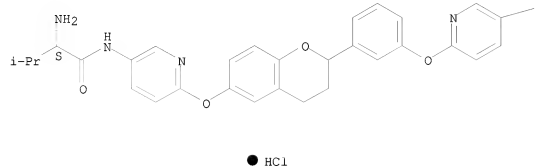
● HCl

RN 728935-68-0 HCAPLUS
CN Butanamide, 2-amino-N-[6-[[3,4-dihydro-2-[3-[(5-nitro-2-pyridinyl)oxy]phenyl]-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]-3-methyl-,

hydrochloride (1:1), (2S)- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



● HCl

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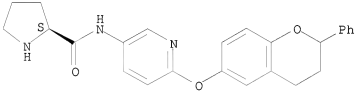
RN 728935-89-5 HCAPLUS
CN 2-Pyrrolidinecarboxamide, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-, hydrochloride (1:1), (2S)- (CA INDEX NAME)

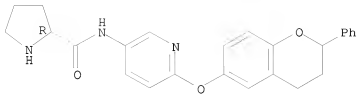
Absolute stereochemistry.



● HCl

RN 728935-91-9 HCAPLUS
CN 2-Pyrrolidinecarboxamide, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

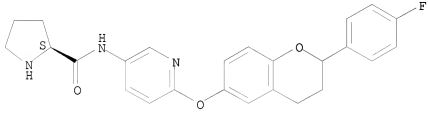
Absolute stereochemistry.



● HCl

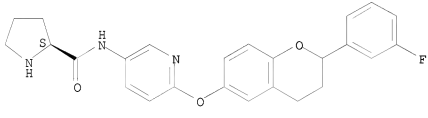
RN 728935-94-2 HCAPLUS
CN 2-Pyrrolidinecarboxamide, N-[6-[[2-(4-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 728935-96-4 HCAPLUS
CN 2-Pyrrolidinecarboxamide, N-[6-[[2-(3-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]-, hydrochloride (1:1), (2S)- (CA INDEX NAME)

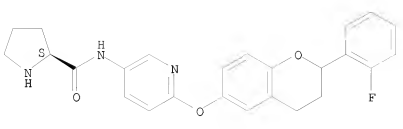
Absolute stereochemistry.



● HCl

RN 728935-98-6 HCAPLUS
CN 2-Pyrrolidinecarboxamide, N-[6-[[2-(2-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]-, hydrochloride (1:1), (2S)- (CA INDEX NAME)

Absolute stereochemistry.



● HCl

RN 728936-00-3 HCAPLUS
CN 2-Pyrrolidinecarboxamide, N-[6-[[3,4-dihydro-2-[3-[(5-nitro-2-pyridinyl)oxy]phenyl]-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

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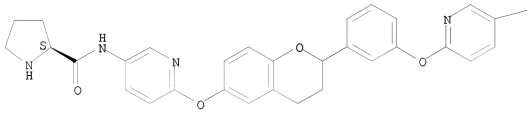

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— NO_2

RN 728936-06-9 HCAPLUS
CN 2-Pyrrolidinecarboxamide, N-[6-[[3,4-dihydro-2-[3-[(5-nitro-2-pyridinyl)oxy]phenyl]-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]-, hydrochloride (1:1), (2S)- (CA INDEX NAME)

Absolute stereochemistry.

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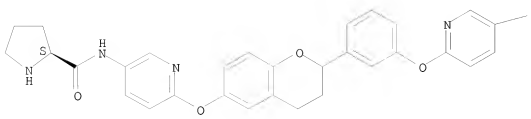

● HCl

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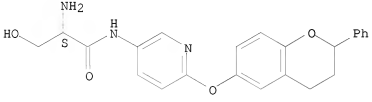
RN 728936-08-1 HCAPLUS
CN Propanamide, 2-amino-N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-3-hydroxy-, hydrochloride (1:1), (2S)- (CA INDEX NAME)

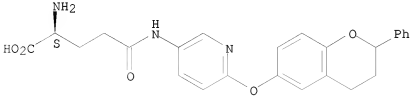
Absolute stereochemistry.



● HCl

RN 728936-13-8 HCAPLUS
CN L-Glutamine, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]- (CA INDEX NAME)

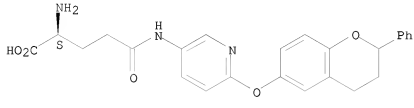
Absolute stereochemistry.



RN 728936-19-4 HCAPLUS

CN L-Glutamine, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-, monohydrochloride (9CI) (CA INDEX NAME)

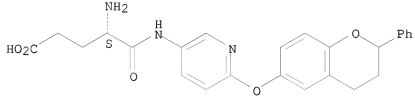
Absolute stereochemistry.



● HCl

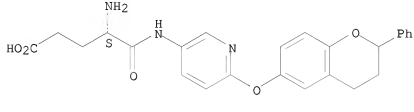
RN 728936-21-8 HCAPLUS
CN Pentanoic acid, 4-amino-5-[[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]amino]-5-oxo-, (4S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 728936-28-5 HCAPLUS
CN Pentanoic acid, 4-amino-5-[[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]amino]-5-oxo-, hydrochloride (1:1), (4S)- (CA INDEX NAME)

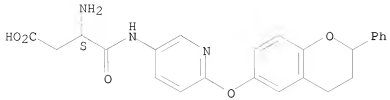
Absolute stereochemistry.



● HCl

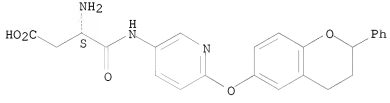
RN 728936-30-9 HCAPLUS
CN Butanoic acid, 3-amino-4-[[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]amino]-4-oxo-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



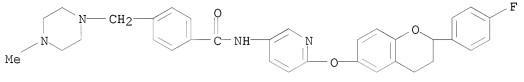
RN 728936-36-5 HCAPLUS
CN Butanoic acid, 3-amino-4-[[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]amino]-4-oxo-, hydrochloride (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

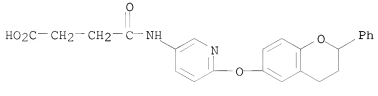


● HCl

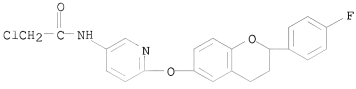
RN 728936-41-2 HCAPLUS
CN Benzamide, N-[6-[[2-(4-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]-4-[(4-methyl-1-piperazinyl)methyl]- (CA INDEX NAME)



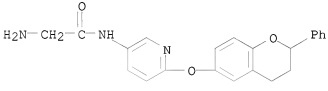
RN 728936-45-6 HCAPLUS
CN Butanoic acid, 4-[[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]amino]-4-oxo- (CA INDEX NAME)



RN 728936-50-3 HCAPLUS
CN Acetamide, 2-chloro-N-[6-[[2-(4-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]- (CA INDEX NAME)

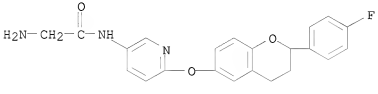


RN 728936-53-6 HCAPLUS
CN Acetamide, 2-amino-N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-, hydrochloride (1:1) (CA INDEX NAME)

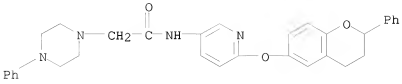


● HCl

RN 728936-60-5 HCAPLUS
CN Acetamide, 2-amino-N-[6-[[2-(4-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]- (CA INDEX NAME)

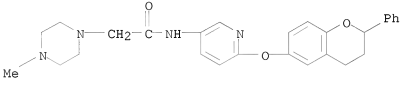


RN 728936-62-7 HCAPLUS
CN 1-Piperazineacetamide, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-4-phenyl-, hydrochloride (1:2) (CA INDEX NAME)



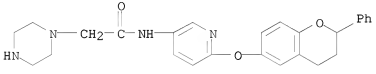
●2 HCl

RN 728936-64-9 HCAPLUS
CN 1-Piperazineacetamide, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-4-methyl-, hydrochloride (1:2) (CA INDEX NAME)



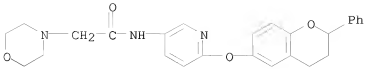
●2 HCl

RN 728936-66-1 HCAPLUS
CN 1-Piperazineacetamide, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-, hydrochloride (1:2) (CA INDEX NAME)



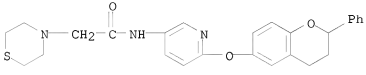
●2 HCl

RN 728936-68-3 HCAPLUS
CN 4-Morpholineacetamide, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-, hydrochloride (1:2) (CA INDEX NAME)



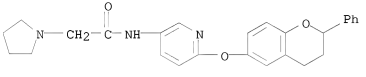
●2 HCl

RN 728936-70-7 HCAPLUS
CN 4-Thiomorpholineacetamide, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-, hydrochloride (1:2) (CA INDEX NAME)



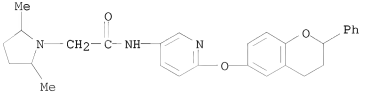
●2 HCl

RN 728936-72-9 HCAPLUS
CN 1-Pyrrolidineacetamide, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-, hydrochloride (1:2) (CA INDEX NAME)

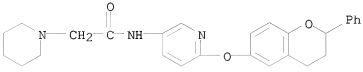


●2 HCl

RN 728936-74-1 HCAPLUS
CN 1-Pyrrolidineacetamide, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-2,5-dimethyl- (CA INDEX NAME)

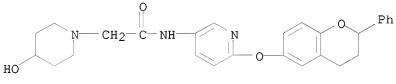


RN 728936-76-3 HCAPLUS
CN 1-Piperidineacetamide, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-, hydrochloride (1:1) (CA INDEX NAME)



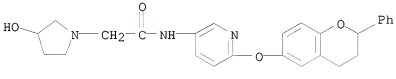
● HCl

RN 728936-78-5 HCAPLUS
CN 1-Piperidineacetamide, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-4-hydroxy-, hydrochloride (1:1) (CA INDEX NAME)



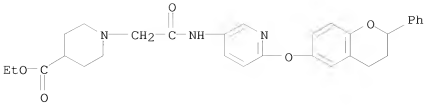
● HCl

RN 728936-82-1 HCAPLUS
CN 1-Pyrrolidineacetamide, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-3-hydroxy-, hydrochloride (1:1) (CA INDEX NAME)



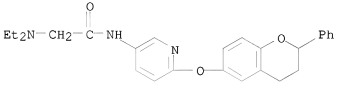
● HCl

RN 728936-84-3 HCAPLUS
CN 4-Piperidinecarboxylic acid, 1-[2-[[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]amino]-2-oxoethyl]-, ethyl ester, hydrochloride (1:1) (CA INDEX NAME)



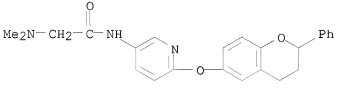
● HCl

RN 728936-86-5 HCAPLUS
CN Acetamide, 2-(diethylamino)-N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-, hydrochloride (1:1) (CA INDEX NAME)



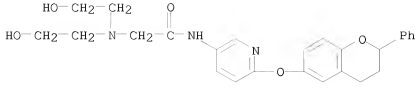
● HCl

RN 728936-88-7 HCAPLUS
CN Acetamide, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-2-(dimethylamino)-, hydrochloride (1:1) (CA INDEX NAME)

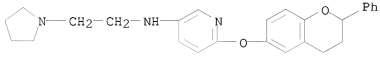


● HCl

RN 728936-90-1 HCAPLUS
CN Acetamide, 2-[bis(2-hydroxyethyl)amino]-N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]- (CA INDEX NAME)

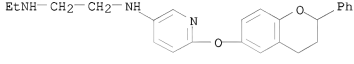


RN 728936-92-3 HCAPLUS
CN 3-Pyridinamine, 6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-N-[2-(1-pyrrolidinyl)ethyl]-, hydrochloride (1:1) (CA INDEX NAME)



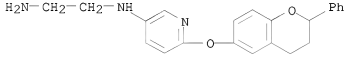
● HCl

RN 728936-96-7 HCAPLUS
CN 1,2-Ethanediamine, N1-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-N2-ethyl-, hydrochloride (1:2) (CA INDEX NAME)



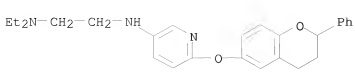
●2 HCl

RN 728936-98-9 HCAPLUS
CN 1,2-Ethanediamine, N1-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-, hydrochloride (1:2) (CA INDEX NAME)



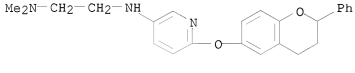
●2 HCl

RN 728937-00-6 HCAPLUS
CN 1,2-Ethanediamine, N2-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-N1,N1-diethyl-, hydrochloride (1:2) (CA INDEX NAME)



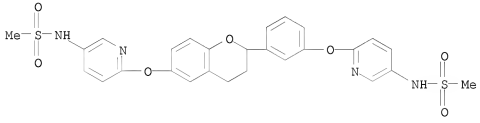
●2 HCl

RN 728937-02-8 HCAPLUS
CN 1,2-Ethanediamine, N2-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-N1,N1-dimethyl-, hydrochloride (1:2) (CA INDEX NAME)

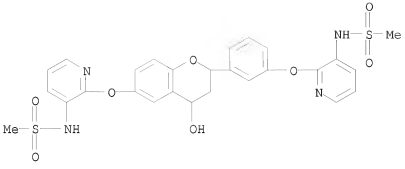


●2 HCl

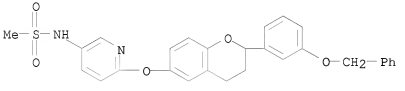
RN 728937-04-0 HCAPLUS
CN Methanesulfonamide, N-[6-[3-[3,4-dihydro-6-[[5-[(methylsulfonyl)amino]-2-pyridinyl]oxy]-2H-1-benzopyran-2-yl]phenoxy]-3-pyridinyl]- (CA INDEX NAME)



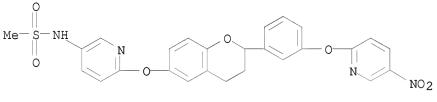
RN 728937-09-5 HCAPLUS
CN Methanesulfonamide, N-[2-[3-[3,4-dihydro-4-hydroxy-6-[[3-[(methylsulfonyl)amino]-2-pyridinyl]oxy]-2H-1-benzopyran-2-yl]phenoxy]-3-pyridinyl]- (CA INDEX NAME)



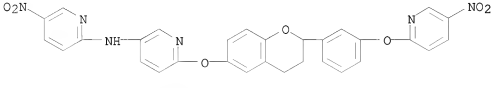
RN 728937-11-9 HCAPLUS
CN Methanesulfonamide, N-[6-[[3,4-dihydro-2-[3-(phenylmethoxy)phenyl]-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]- (CA INDEX NAME)



RN 728937-15-3 HCAPLUS
CN Methanesulfonamide, N-[6-[[3,4-dihydro-2-[3-[(5-nitro-2-pyridinyl)oxy]phenyl]-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]- (CA INDEX NAME)

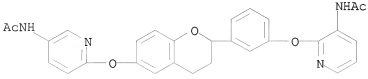


RN 728937-17-5 HCAPLUS
CN 3-Pyridinamine, 6-[[3,4-dihydro-2-[3-[(5-nitro-2-pyridinyl)oxy]phenyl]-2H-1-benzopyran-6-yl]oxy]-N-(5-nitro-2-pyridinyl)- (CA INDEX NAME)

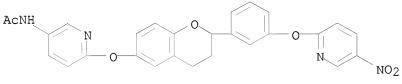


RN 728937-19-7 HCAPLUS
CN Acetamide, N-[2-[3-[6-[[5-(acetylamino)-2-pyridinyl]oxy]-3,4-dihydro-2H-1-

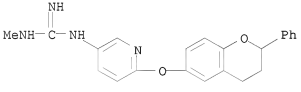
benzopyran-2-yl]phenoxy]-3-pyridinyl]- (CA INDEX NAME)



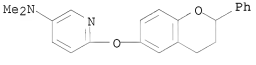
RN 728937-21-1 HCAPLUS
CN Acetamide, N-[6-[[3,4-dihydro-2-[3-[(5-nitro-2-pyridinyl)oxy]phenyl]-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]- (CA INDEX NAME)



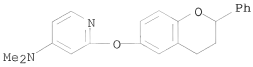
RN 728937-25-5 HCAPLUS
CN Guanidine, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-N'-methyl- (CA INDEX NAME)



RN 728937-27-7 HCAPLUS
CN 3-Pyridinamine, 6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-N,N-dimethyl- (CA INDEX NAME)

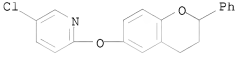


RN 728937-29-9 HCAPLUS
CN 4-Pyridinamine, 2-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-N,N-dimethyl-, hydrochloride (1:1) (CA INDEX NAME)

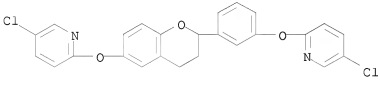


● HCl

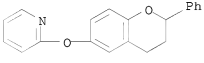
RN 728937-31-3 HCAPLUS
CN Pyridine, 5-chloro-2-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]- (CA INDEX NAME)



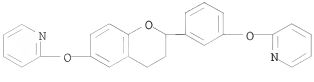
RN 728937-33-5 HCAPLUS
CN Pyridine, 5-chloro-2-[3-[6-[(5-chloro-2-pyridinyl)oxy]-3,4-dihydro-2H-1-benzopyran-2-yl]phenoxy]- (CA INDEX NAME)



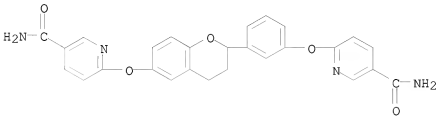
RN 728937-35-7 HCAPLUS
CN Pyridine, 2-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]- (CA INDEX NAME)



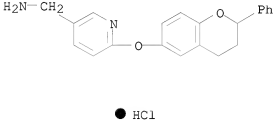
RN 728937-37-9 HCAPLUS
CN Pyridine, 2-[3-[3,4-dihydro-6-(2-pyridinyloxy)-2H-1-benzopyran-2-yl]phenoxy]- (CA INDEX NAME)



RN 728937-44-8 HCAPLUS
CN 3-Pyridinecarboxamide, 6-[3-[6-[[5-(aminocarbonyl)-2-pyridinyl]oxy]-3,4-dihydro-2H-1-benzopyran-2-yl]phenoxy]- (CA INDEX NAME)

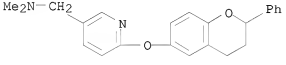


RN 728937-46-0 HCAPLUS
CN 3-Pyridinemethanamine, 6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-, hydrochloride (1:1) (CA INDEX NAME)

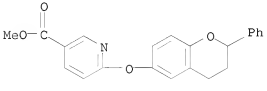


● HCl

RN 728937-48-2 HCAPLUS
CN 3-Pyridinemethanamine, 6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-N,N-dimethyl- (CA INDEX NAME)

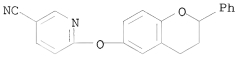


RN 728937-51-7 HCAPLUS
CN 3-Pyridinecarboxylic acid, 6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-, methyl ester (CA INDEX NAME)

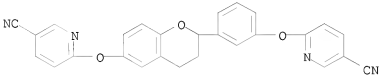


RN 728937-55-1 HCAPLUS

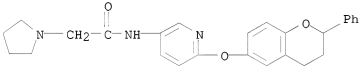
CN 3-Pyridinecarbonitrile, 6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]- (CA INDEX NAME)



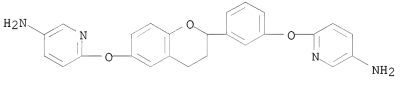
RN 728937-57-3 HCAPLUS
CN 3-Pyridinecarbonitrile, 6-[3-[6-[(5-cyano-2-pyridinyl)oxy]-3,4-dihydro-2H-1-benzopyran-2-yl]phenoxy]- (CA INDEX NAME)



IT 728936-94-5, N-[6-(2-Phenylchroman-6-yloxy)pyridin-3-yl]-2-(pyrrolidin-1-yl)acetamide 728937-07-3, 6-[2-[3-[(5-Aminopyridin-2-yl)oxy]phenyl]chroman-6-yloxy]pyridin-3-ylamine
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of pyridine derivs. useful for inhibiting sodium/calcium exchange system)
RN 728936-94-5 HCAPLUS
CN 1-Pyrrolidineacetamide, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]- (CA INDEX NAME)



RN 728937-07-3 HCAPLUS
CN 3-Pyridinamine, 6-[3-[6-[(5-amino-2-pyridinyl)oxy]-3,4-dihydro-2H-1-benzopyran-2-yl]phenoxy]- (CA INDEX NAME)

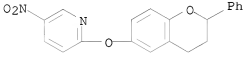


IT 488847-28-5P, 5-Nitro-2-(2-phenylchroman-6-yloxy)pyridine
488847-51-4P, 6-(5-Nitropyridin-2-yloxy)-2-phenylchroman-4-one
488847-53-6P, 7-(5-Nitropyridin-2-yloxy)-2-phenylchroman-4-one

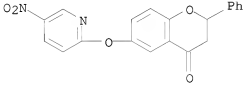
488847-59-2P, 2-[2-(3-Fluorophenyl)chroman-6-yloxy]-5-nitropyridine 488847-69-4P, 5-Nitro-2-(2-phenylchroman-7-yloxy)pyridine 488847-76-3P, 2-[2-(2,4-Dichlorophenyl)chroman-6-yloxy]-5-nitropyridine 488847-84-3P, 2-[2-(3-Chlorophenyl)chroman-6-yloxy]-5-nitropyridine 488847-92-3P, 2-[2-(3,5-Difluorophenyl)chroman-6-yloxy]-5-nitropyridine 488847-98-9P, 2-[2-(2,5-Difluorophenyl)chroman-6-yloxy]-5-nitropyridine 488848-04-0P, 2-[2-(3-Bromophenyl)chroman-6-yloxy]-5-nitropyridine 488848-12-0P, 2-[2-(4-Ethylphenyl)chroman-6-yloxy]-5-nitropyridine 488848-20-0P, 2-(3-Methyl-2-phenylchroman-6-yloxy)-5-nitropyridine 488848-28-8P, 3-Methyl-6-(5-nitropyridin-2-yloxy)-2-phenylchroman-4-one 488848-30-2P, 2-[2-(2-Fluorophenyl)chroman-6-yloxy]-5-nitropyridine 488848-38-0P, 2-(2,3-Dihydro-2-phenylbenzo[1,4]dioxin-6-yloxy)-5-nitropyridine 488848-54-0P, 5-Nitro-2-(6-phenyl-5,6,7,8-tetrahydronaphthalen-2-yloxy)pyridine 488848-55-1P, 6-(5-Nitropyridin-2-yloxy)-2-phenyl-3,4-dihydro-2H-naphthalen-1-one 488848-58-4P 488849-11-2P, 1-Methyl-3-[6-(2-phenylchroman-6-yloxy)pyridin-3-yl]thiourea 488849-15-6P, 6-[2-(2,5-Difluorophenyl)chroman-6-yloxy]pyridin-3-ylamine 488849-17-8P, 6-[2-(2-Fluorophenyl)chroman-6-yloxy]pyridin-3-ylamine 488849-20-3P, 6-[2-(3-Fluorophenyl)chroman-6-yloxy]pyridin-3-ylamine 488849-22-5P, 6-(5-Aminopyridin-2-yloxy)-2-phenylchroman-4-one 488849-33-8P, 2-[2-(4-Trifluoromethylphenyl)chroman-6-yloxy]-5-nitropyridine 488849-37-2P, 6-[2-(4-Trifluoromethylphenyl)chroman-6-yloxy]pyridin-3-ylamine 488849-43-0P, 2-[2-(2,4-Difluorophenyl)chroman-6-yloxy]-5-nitropyridine 488849-47-4P, 6-[2-(2,4-Difluorophenyl)chroman-6-yloxy]pyridin-3-ylamine 488849-50-9P, 2-[2-(2-Chlorophenyl)chroman-6-yloxy]-5-nitropyridine 488849-55-4P, 2-[2-(4-Fluorophenyl)chroman-6-yloxy]-5-nitropyridine 488849-59-8P 488849-61-2P, 2-[2-(2,3-Difluorophenyl)chroman-6-yloxy]-5-nitropyridine 488849-71-4P, 2-[3-(3-Fluorophenyl)chroman-7-yloxy]-5-nitropyridine 488849-76-9P, 2-[3-(Phenyl)chroman-7-yloxy]-5-nitropyridine 488849-79-2P, 5-Nitro-2-(2-phenyl-2,3-dihydrobenzo[1,4]oxathiin-6-yloxy)pyridine 488849-84-9P, 5-Nitro-2-[2-(4-nitrophenyl)chroman-6-yloxy]pyridine 488849-88-3P, 6-[2-(4-Aminophenyl)chroman-6-yloxy]pyridin-3-ylamine 488849-89-4P, 5-Nitro-2-[2-(2-nitrophenyl)chroman-6-yloxy]pyridine 488849-93-0P, 6-[2-(2-Aminophenyl)chroman-6-yloxy]pyridin-3-ylamine 488849-95-2P, 5-Nitro-2-[2-(3-nitrophenyl)chroman-6-yloxy]pyridine 488849-98-5P, 6-[2-(3-Aminophenyl)chroman-6-yloxy]pyridin-3-ylamine 488850-05-1P, 2-[2-(3-Methoxyphenyl)chroman-6-yloxy]-5-nitropyridine 488850-09-5P, 6-[2-(3-Methoxyphenyl)chroman-6-yloxy]pyridin-3-ylamine 728934-53-0P, 2-[2-(2,6-Difluorophenyl)chroman-6-yloxy]-5-nitropyridine 728934-56-3P, 2-[2-(2-Trifluoromethylphenyl)chroman-6-yloxy]-5-nitropyridine 728934-60-9P, 2-[2-(3-Chloro-4-fluorophenyl)chroman-6-yloxy]-5-nitropyridine 728934-65-4P, 6-[2-(2,3-Difluorophenyl)chroman-6-yloxy]pyridin-3-ylamine 728934-68-7P, 6-[2-(2,6-Difluorophenyl)chroman-6-yloxy]pyridin-3-ylamine 728934-70-1P, 6-[2-(3,5-Difluorophenyl)chroman-6-yloxy]pyridin-3-ylamine 728934-72-3P, 6-[2-(2-Chlorophenyl)chroman-6-yloxy]pyridin-3-ylamine 728934-75-6P, 6-(2-Phenyl-2,3-dihydrobenzo[1,4]oxathiin-6-yloxy)pyridin-3-ylamine hydrochloride 728934-77-8P,

6-(5-Aminopyridin-2-yloxy)-2-phenylchromen-4-one 728934-80-3P,
6-[2-[3-(Pyridin-2-yloxy)phenyl]chroman-6-yloxy]pyridin-3-ylamine
728935-44-2P, 4-[[6-(2-Phenylchroman-6-yloxy)pyridin-3-
yl]carbamoyl]piperidine-1-carboxylic acid tert-butyl ester
728935-46-4P, [1-[[6-(2-Phenylchroman-6-yloxy)pyridin-3-
yl]carbamoyl]ethyl]carbamic acid tert-butyl ester 728935-48-6P
728935-50-0P 728935-56-6P 728935-58-8P
728935-71-5P 728935-74-8P 728935-77-1P
728935-80-6P 728935-83-9P 728935-85-1P
728935-87-3P 728936-02-5P 728936-04-7P
728936-11-6P 728936-17-2P 728936-25-2P
728936-34-3P 728936-56-9P 728936-58-1P,
N-[6-[2-(4-Fluorophenyl)chroman-6-yloxy]pyridin-3-yl]-2-azidoacetamide
728937-23-3P, N-[6-[2-(3-Hydroxyphenyl)chroman-6-yloxy]pyridin-3-
yl]acetamide
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation of pyridine derivs. useful for inhibiting sodium/calcium
exchange system)

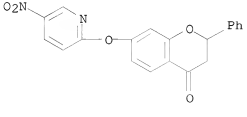
RN 488847-28-5 HCAPLUS
CN Pyridine, 2-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-5-nitro- (CA
INDEX NAME)



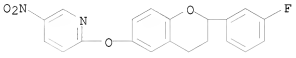
RN 488847-51-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-6-[(5-nitro-2-pyridinyl)oxy]-2-phenyl-
(CA INDEX NAME)



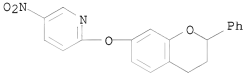
RN 488847-53-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-[(5-nitro-2-pyridinyl)oxy]-2-phenyl-
(CA INDEX NAME)



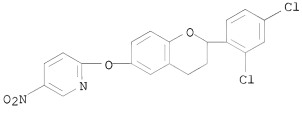
RN 488847-59-2 HCAPLUS
CN Pyridine, 2-[[2-(3-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



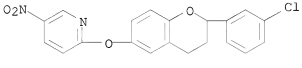
RN 488847-69-4 HCAPLUS
CN Pyridine, 2-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-7-yl)oxy]-5-nitro- (CA INDEX NAME)



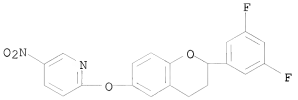
RN 488847-76-3 HCAPLUS
CN Pyridine, 2-[[2-(2,4-dichlorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



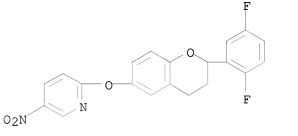
RN 488847-84-3 HCAPLUS
CN Pyridine, 2-[[2-(3-chlorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



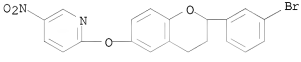
RN 488847-92-3 HCAPLUS
CN Pyridine, 2-[[2-(3,5-difluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



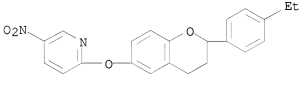
RN 488847-98-9 HCAPLUS
CN Pyridine, 2-[[2-(2,5-difluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



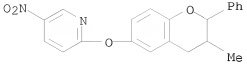
RN 488848-04-0 HCAPLUS
CN Pyridine, 2-[[2-(3-bromophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



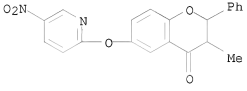
RN 488848-12-0 HCAPLUS
CN Pyridine, 2-[[2-(4-ethylphenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



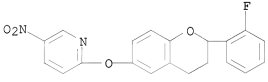
RN 488848-20-0 HCAPLUS
CN Pyridine, 2-[(3,4-dihydro-3-methyl-2-phenyl-2H-1-benzopyran-6-yl)oxy]-5-nitro- (CA INDEX NAME)



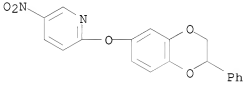
RN 488848-28-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-3-methyl-6-[(5-nitro-2-pyridinyl)oxy]-2-phenyl- (CA INDEX NAME)



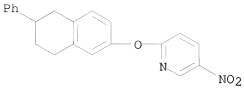
RN 488848-30-2 HCAPLUS
CN Pyridine, 2-[[2-(2-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



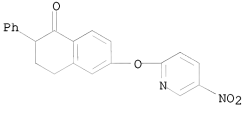
RN 488848-38-0 HCAPLUS
CN Pyridine, 2-[(2,3-dihydro-2-phenyl-1,4-benzodioxin-6-yl)oxy]-5-nitro- (CA INDEX NAME)



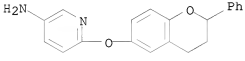
RN 488848-54-0 HCAPLUS
CN Pyridine, 5-nitro-2-[(5,6,7,8-tetrahydro-6-phenyl-2-naphthalenyl)oxy]- (CA INDEX NAME)



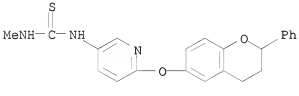
RN 488848-55-1 HCAPLUS
CN 1(2H)-Naphthalenone, 3,4-dihydro-6-[(5-nitro-2-pyridinyl)oxy]-2-phenyl- (CA INDEX NAME)



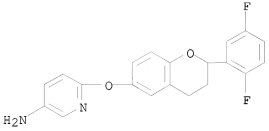
RN 488848-58-4 HCAPLUS
CN 3-Pyridinamine, 6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]- (CA INDEX NAME)



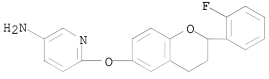
RN 488849-11-2 HCAPLUS
CN Thiourea, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-N'-methyl- (CA INDEX NAME)



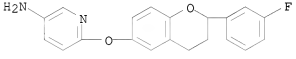
RN 488849-15-6 HCAPLUS
CN 3-Pyridinamine, 6-[[2-(2,5-difluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



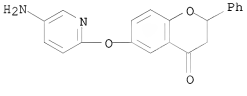
RN 488849-17-8 HCAPLUS
CN 3-Pyridinamine, 6-[[2-(2-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



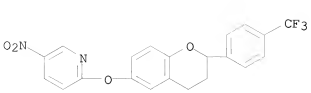
RN 488849-20-3 HCAPLUS
CN 3-Pyridinamine, 6-[[2-(3-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



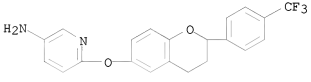
RN 488849-22-5 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[(5-amino-2-pyridinyl)oxy]-2,3-dihydro-2-phenyl- (CA INDEX NAME)



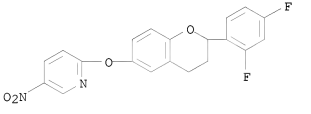
RN 488849-33-8 HCAPLUS
CN Pyridine, 2-[[3,4-dihydro-2-[4-(trifluoromethyl)phenyl]-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



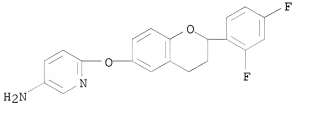
RN 488849-37-2 HCAPLUS
CN 3-Pyridinamine, 6-[[3,4-dihydro-2-[4-(trifluoromethyl)phenyl]-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



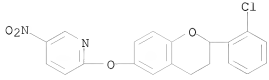
RN 488849-43-0 HCAPLUS
CN Pyridine, 2-[[2-(2,4-difluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



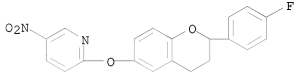
RN 488849-47-4 HCAPLUS
CN 3-Pyridinamine, 6-[[2-(2,4-difluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



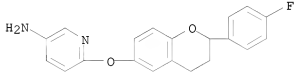
RN 488849-50-9 HCAPLUS
CN Pyridine, 2-[[2-(2-chlorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



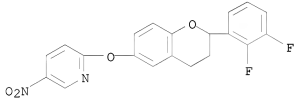
RN 488849-55-4 HCAPLUS
CN Pyridine, 2-[[2-(4-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



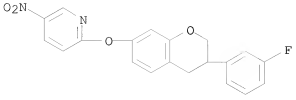
RN 488849-59-8 HCAPLUS
CN 3-Pyridinamine, 6-[[2-(4-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



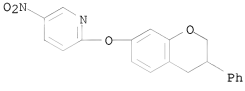
RN 488849-61-2 HCAPLUS
CN Pyridine, 2-[[2-(2,3-difluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



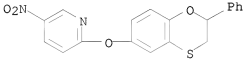
RN 488849-71-4 HCAPLUS
CN Pyridine, 2-[[3-(3-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-7-yl]oxy]-5-nitro- (CA INDEX NAME)



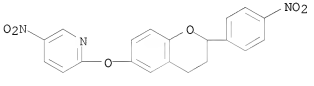
RN 488849-76-9 HCAPLUS
CN Pyridine, 2-[(3,4-dihydro-3-phenyl-2H-1-benzopyran-7-yl)oxy]-5-nitro- (CA INDEX NAME)



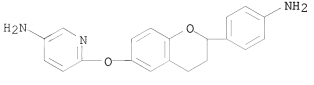
RN 488849-79-2 HCAPLUS
CN Pyridine, 2-[(2,3-dihydro-2-phenyl-1,4-benzoxathiin-6-yl)oxy]-5-nitro- (CA INDEX NAME)



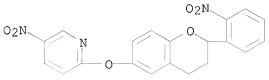
RN 488849-84-9 HCAPLUS
CN Pyridine, 2-[[3,4-dihydro-2-(4-nitrophenyl)-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



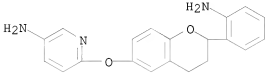
RN 488849-88-3 HCAPLUS
CN 3-Pyridinamine, 6-[[2-(4-aminophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



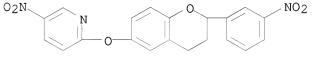
RN 488849-89-4 HCAPLUS
CN Pyridine, 2-[[3,4-dihydro-2-(2-nitrophenyl)-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



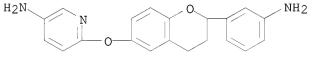
RN 488849-93-0 HCAPLUS
CN 3-Pyridinamine, 6-[[2-(2-aminophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



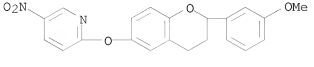
RN 488849-95-2 HCAPLUS
CN Pyridine, 2-[[3,4-dihydro-2-(3-nitrophenyl)-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



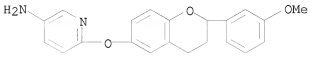
RN 488849-98-5 HCAPLUS
CN 3-Pyridinamine, 6-[[2-(3-aminophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



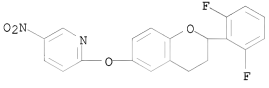
RN 488850-05-1 HCAPLUS
CN Pyridine, 2-[[3,4-dihydro-2-(3-methoxyphenyl)-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



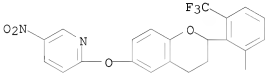
RN 488850-09-5 HCAPLUS
CN 3-Pyridinamine, 6-[[3,4-dihydro-2-(3-methoxyphenyl)-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



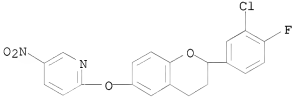
RN 728934-53-0 HCAPLUS
CN Pyridine, 2-[[2-(2,6-difluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



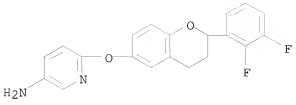
RN 728934-56-3 HCAPLUS
CN Pyridine, 2-[[3,4-dihydro-2-[2-(trifluoromethyl)phenyl]-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



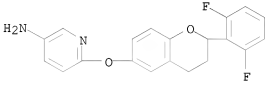
RN 728934-60-9 HCAPLUS
CN Pyridine, 2-[[2-(3-chloro-4-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



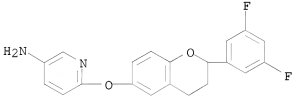
RN 728934-65-4 HCAPLUS
CN 3-Pyridinamine, 6-[[2-(2,3-difluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



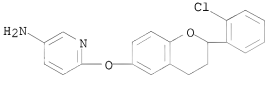
RN 728934-68-7 HCAPLUS
CN 3-Pyridinamine, 6-[[2-(2,6-difluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



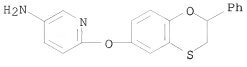
RN 728934-70-1 HCAPLUS
CN 3-Pyridinamine, 6-[[2-(3,5-difluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



RN 728934-72-3 HCAPLUS
CN 3-Pyridinamine, 6-[[2-(2-chlorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)

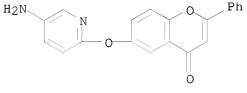


RN 728934-75-6 HCAPLUS
CN 3-Pyridinamine, 6-[(2,3-dihydro-2-phenyl-1,4-benzoxathiin-6-yl)oxy]-, hydrochloride (1:1) (CA INDEX NAME)

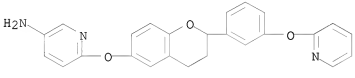


● HCl

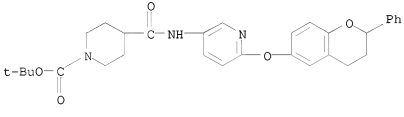
RN 728934-77-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[(5-amino-2-pyridinyl)oxy]-2-phenyl- (CA INDEX NAME)



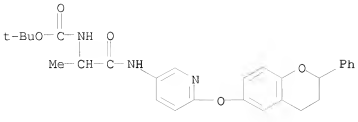
RN 728934-80-3 HCAPLUS
CN 3-Pyridinamine, 6-[[3,4-dihydro-2-[3-(2-pyridinyloxy)phenyl]-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



RN 728935-44-2 HCAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]amino]carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

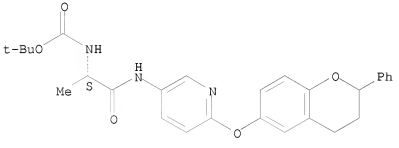


RN 728935-46-4 HCAPLUS
CN Carbamic acid, [2-[[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]amino]-1-methyl-2-oxoethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



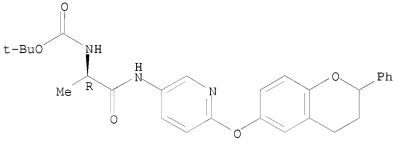
RN 728935-48-6 HCAPLUS
CN Carbamic acid, [(1S)-2-[[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]amino]-1-methyl-2-oxoethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



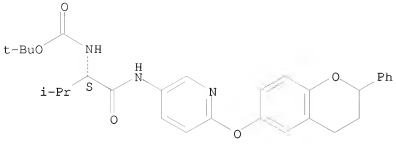
RN 728935-50-0 HCAPLUS
CN Carbamic acid, [(1R)-2-[[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]amino]-1-methyl-2-oxoethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



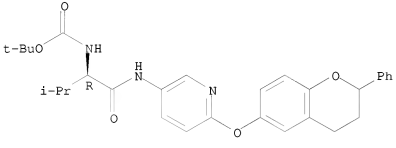
RN 728935-56-6 HCAPLUS
CN Carbamic acid, [(1S)-1-[[[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]amino]carbonyl]-2-methylpropyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



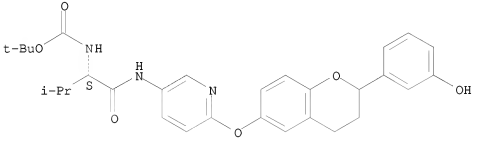
RN 728935-58-8 HCAPLUS
CN Carbamic acid, [(1R)-1-[[[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]amino]carbonyl]-2-methylpropyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 728935-71-5 HCAPLUS
CN Carbamic acid, [(1S)-1-[[[6-[[3,4-dihydro-2-(3-hydroxyphenyl)-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]amino]carbonyl]-2-methylpropyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 728935-74-8 HCAPLUS
CN Carbamic acid, [(1S)-1-[[[6-[[3,4-dihydro-2-[3-[(5-nitro-2-pyridinyl)oxy]phenyl]-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]amino]carbonyl]-2-methylpropyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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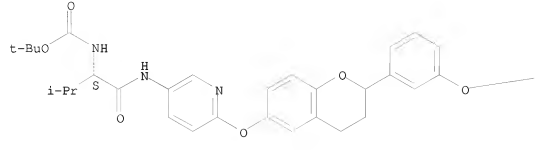

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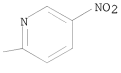
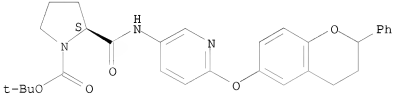


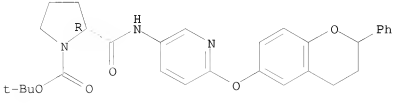
RN 728935-77-1 HCAPLUS
CN 1-Pyrrolidinecarboxylic acid, 2-[[[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]amino]carbonyl]-, 1,1-dimethylethyl ester, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 728935-80-6 HCAPLUS
CN 1-Pyrrolidinecarboxylic acid, 2-[[[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]amino]carbonyl]-, 1,1-dimethylethyl ester, (2R)- (CA INDEX NAME)

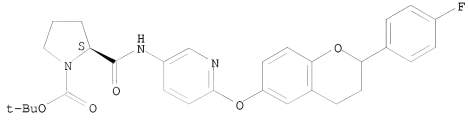
Absolute stereochemistry.



Updated Search

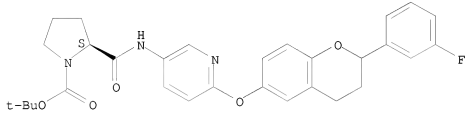
RN 728935-83-9 HCAPLUS
CN 1-Pyrrolidinecarboxylic acid, 2-[[[6-[[2-(4-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]amino]carbonyl]-, 1,1-dimethylethyl ester, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



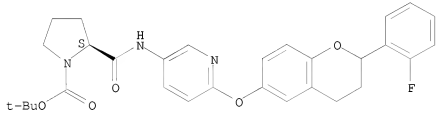
RN 728935-85-1 HCAPLUS
CN 1-Pyrrolidinecarboxylic acid, 2-[[[6-[[2-(3-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]amino]carbonyl]-, 1,1-dimethylethyl ester, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



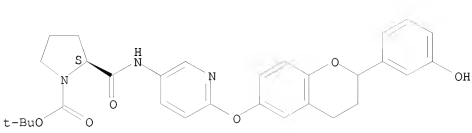
RN 728935-87-3 HCAPLUS
CN 1-Pyrrolidinecarboxylic acid, 2-[[[6-[[2-(2-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]amino]carbonyl]-, 1,1-dimethylethyl ester, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 728936-02-5 HCAPLUS
CN 1-Pyrrolidinecarboxylic acid, 2-[[[6-[[3,4-dihydro-2-(3-hydroxyphenyl)-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]amino]carbonyl]-, 1,1-dimethylethyl ester, (2S)- (CA INDEX NAME)

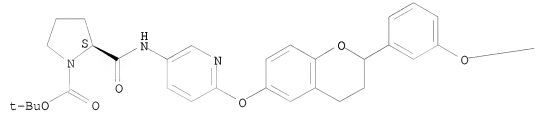
Absolute stereochemistry.



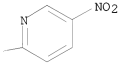
RN 728936-04-7 HCAPLUS
CN 1-Pyrrolidinecarboxylic acid, 2-[[[6-[[3,4-dihydro-2-[3-[(5-nitro-2-pyridinyl)oxy]phenyl]-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]amino]carbonyl]-, 1,1-dimethylethyl ester, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

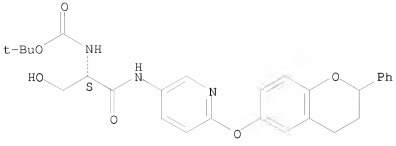


PAGE 1-B



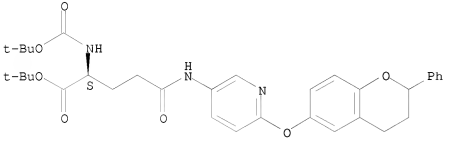
RN 728936-11-6 HCAPLUS
CN Carbamic acid, [(1S)-2-[[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]amino]-1-(hydroxymethyl)-2-oxoethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



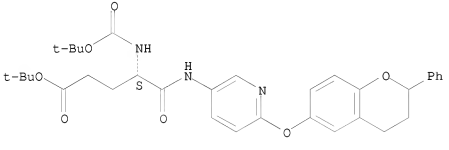
RN 728936-17-2 HCAPLUS
CN L-Glutamine, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-N2-[(1,1-dimethylethoxy)carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.



RN 728936-25-2 HCAPLUS
CN Pentanoic acid, 5-[[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]amino]-4-[[(1,1-dimethylethoxy)carbonyl]amino]-5-oxo-, 1,1-dimethylethyl ester, (4S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 728936-34-3 HCAPLUS
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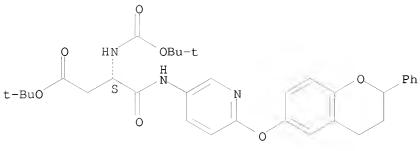
Absolute stereochemistry.



RN 728936-56-9 HCAPLUS
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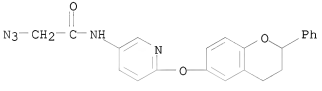
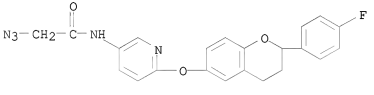


RN 728936-58-1 HCAPLUS
CN Acetamide, 2-azido-N-[6-[[2-(4-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]- (CA INDEX NAME)



RN 728937-23-3 HCAPLUS
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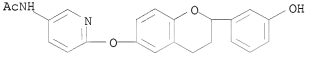

L20 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:58077 HCAPLUS
DOCUMENT NUMBER: 138:122550
TITLE: Preparation of phenyl chromans, benzo[1,4]dioxins, indans, and naphthalenes as potent inhibitors of

Na+/Ca2+ exchange mechanism for treatment of arrhythmias

INVENTOR(S): Koskelainen, Tuula; Otsomaa, Leena; Karjalainen, Arto; Kotovuori, Pekka; Tenhunen, Jukka; Rasku, Sirpa; Nore, Pentti; Tiainen, Eija; Toermaekangas, Olli
PATENT ASSIGNEE(S): Orion Corporation, Finland
SOURCE: PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003006452	A1	20030123	WO 2002-FI621	20020710
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2452918	A1	20030123	CA 2002-2452918	20020710
AU 2002321339	A1	20030129	AU 2002-321339	20020710
AU 2002321339	B2	20070621		
EP 1412343	A1	20040428	EP 2002-755036	20020710
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BR 2002011070	A	20040615	BR 2002-11070	20020710
CN 1525966	A	20040901	CN 2002-813863	20020710
HU 2004000391	A2	20041228	HU 2004-391	20020710
HU 2004000391	A3	20080328		
JP 2005504738	T	20050217	JP 2003-512224	20020710
JP 4113839	B2	20080709		
NZ 530490	A	20051223	NZ 2002-530490	20020710
AT 338038	T	20060915	AT 2002-755036	20020710
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MX 2004PA00267	A	20040723	MX 2004-PA267	20040109
US 20040235905	A1	20041125	US 2004-482396	20040608
HK 1068611	A1	20070112	HK 2005-100708	20050127

PRIORITY APPLN. INFO.: FI 2001-1507 A 20010710
WO 2002-FI621 W 20020710

OTHER SOURCE(S): MARPAT 138:122550
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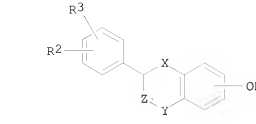

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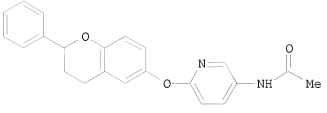


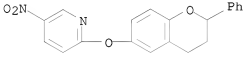
II

AB Title therapeutically active compds. I [wherein X = O, CH2, or CO; Z = CHR9 or bond; Y = CH2, CO, CHOR10, CHNR11R12, O, S, SO, or SO2, provided that when Z = a bond, Y ≠ CO; the dashed line = optional double bond when Z = CR9 and Y = CH, COR10, or CNR11R12; R1 = (CH2)nNR4R7 or dihydroimidazolylmethyl or (un)substituted 2-aminophenyl or 2-pyridyl; n = 1-4; R2 and R3 = independently H, alkyl, alkoxy, NO2, halo, CF3, OH, NHR8, or CO2H; R4 and R7 = independently H or (hydroxy)alkyl; R8 = H or acyl; R9 = H or alkyl; R10 = H, alkylsulfonyl, or acyl; R11 and R12 = independently H, alkyl, or acyl; and pharmaceutically acceptable salts and esters thereof] were prepared as inhibitors of Na+/Ca2+ exchange mechanism in cells. For example, 6-hydroxyflavanone was reduced to 2-phenylchroman-6-ol and coupled with 2-chloro-5-nitropyridine. Reduction to the amine using glacial acetic acid and Zn powder followed by acetylation gave 5-(acetylamino)-2-(2-phenylchroman-6-yloxy)pyridine (II). The latter delayed the appearance (38 ± 7.5 min vs. vehicle) and decreased the amplitude (74 ± 16 mg vs. vehicle) of ouabain-induced arrhythmias in guinea-pig papillary muscles at a concentration of 30 μM. Thus, I are useful for the treatment of arrhythmias.

IT 488847-28-5P, 5-Nitro-2-[(2-phenylchroman-6-yl)oxy]pyridine 488847-51-4P, 6-[(5-Nitropyridin-2-yl)oxy]-2-phenylchroman-4-one 488847-55-8P, 6-[(5-Nitropyridin-2-yl)oxy]-2-phenylchroman-4-ol 488847-59-2P, 2-[[2-(3-Fluorophenyl)chroman-6-yl]oxy]-5-nitropyridine 488847-98-9P, 2-[[2-(2,5-Difluorophenyl)chroman-6-yl]oxy]-5-nitropyridine 488848-30-2P, 2-[[2-(2-Fluorophenyl)chroman-6-yl]oxy]-5-nitropyridine 488848-58-4P, 5-Amino-2-[(2-phenylchroman-6-yl)oxy]pyridine 488849-15-6P, [6-[[2-(2,5-Difluorophenyl)chroman-6-yl]oxy]pyridin-3-yl]amine 488849-17-8P, [6-[[2-(2-Fluorophenyl)chroman-6-yl]oxy]pyridin-3-yl]amine 488849-20-3P, [6-[[2-(3-Fluorophenyl)chroman-6-yl]oxy]pyridin-3-yl]amine 488849-33-8P, 5-Nitro-2-[[2-(4-trifluoromethylphenyl)chroman-6-yl]oxy]pyridine 488849-37-2P, [6-[[2-(4-Trifluoromethylphenyl)chroman-6-yl]oxy]pyridin-3-yl]amine 488849-43-0P, 2-[[2-(2,4-Difluorophenyl)chroman-6-yl]oxy]-5-nitropyridine 488849-47-4P, [6-[[2-(2,4-Difluorophenyl)chroman-6-yl]oxy]pyridin-3-yl]amine 488849-55-4P, 5-Nitro-2-[[2-(4-Fluorophenyl)chroman-6-yl]oxy]pyridine 488849-59-8P,

[6-[[2-(4-Fluorophenyl)chroman-6-yl]oxy]pyridin-3-yl]amine 488849-79-2P, 5-Nitro-2-[(2-phenyl-2,3-dihydrobenzo[1,4]oxathiin-6-yl)oxy]pyridine 488849-84-9P, 5-Nitro-2-[[2-(4-nitrophenyl)chroman-6-yl]oxy]pyridine 488849-89-4P, 5-Nitro-2-[[2-(2-nitrophenyl)chroman-6-yl]oxy]pyridine 488849-93-0P, [6-[[2-(2-Aminophenyl)chroman-6-yl]oxy]pyridin-3-yl]amine 488849-95-2P, 5-Nitro-2-[[2-(3-nitrophenyl)chroman-6-yl]oxy]pyridine 488849-99-6P, 2-(4-Methoxyphenyl)-6-[(5-nitropyridin-2-yl)oxy]chroman-4-ol 488850-00-6P 488850-02-8P, 2-(2-Methoxyphenyl)-6-[(5-nitropyridin-2-yl)oxy]chroman-4-ol 488850-05-1P, 2-[[2-(3-Methoxyphenyl)chroman-6-yl]oxy]-5-nitropyridine 488850-09-5P, [6-[[2-(3-Methoxyphenyl)chroman-6-yl]oxy]pyridin-3-yl]amine 488850-11-9P, 2-(3-Methoxyphenyl)-6-[(5-nitropyridin-2-yl)oxy]chroman-4-ol
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(antiarrhythmic; preparation of Ph chromans, benzo[1,4]dioxins, indans, and naphthalenes as potent inhibitors of Na+/Ca2+ exchange mechanism for treatment of arrhythmias)

RN 488847-28-5 HCAPLUS
CN Pyridine, 2-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-5-nitro- (CA INDEX NAME)



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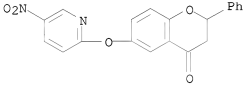

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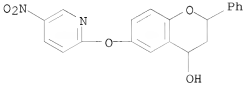
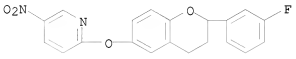


RN 488847-59-2 HCAPLUS
CN Pyridine, 2-[[2-(3-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



RN 488847-98-9 HCAPLUS
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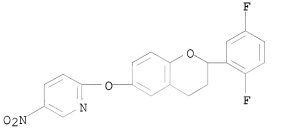

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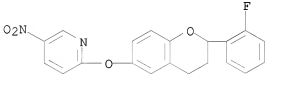

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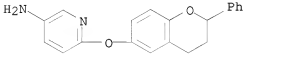

RN 488849-15-6 HCAPLUS
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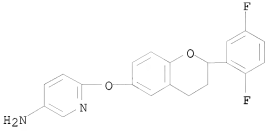
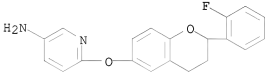


RN 488849-17-8 HCAPLUS
CN 3-Pyridinamine, 6-[[2-(2-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



RN 488849-20-3 HCAPLUS
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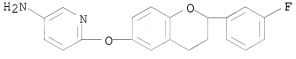

RN 488849-33-8 HCAPLUS
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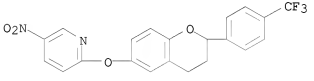
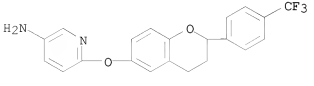


RN 488849-37-2 HCAPLUS
CN 3-Pyridinamine, 6-[[3,4-dihydro-2-[4-(trifluoromethyl)phenyl]-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



RN 488849-43-0 HCAPLUS
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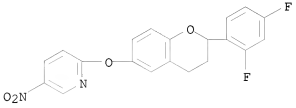

RN 488849-47-4 HCAPLUS
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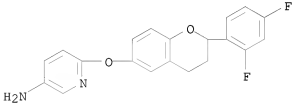

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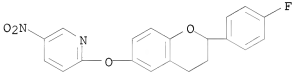
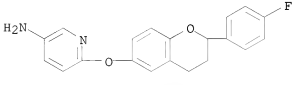
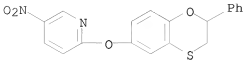


RN 488849-59-8 HCAPLUS
CN 3-Pyridinamine, 6-[[2-(4-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)

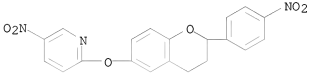


RN 488849-79-2 HCAPLUS
CN Pyridine, 2-[(2,3-dihydro-2-phenyl-1,4-benzoxathiin-6-yl)oxy]-5-nitro-

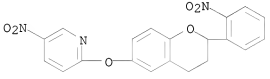
(CA INDEX NAME)



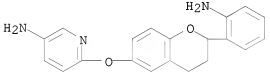
RN 488849-84-9 HCAPLUS
CN Pyridine, 2-[[3,4-dihydro-2-(4-nitrophenyl)-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



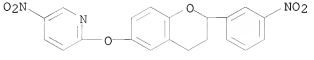
RN 488849-89-4 HCAPLUS
CN Pyridine, 2-[[3,4-dihydro-2-(2-nitrophenyl)-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



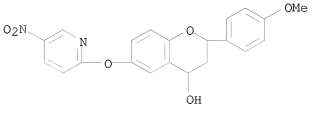
RN 488849-93-0 HCAPLUS
CN 3-Pyridinamine, 6-[[2-(2-aminophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



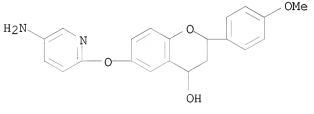
RN 488849-95-2 HCAPLUS
CN Pyridine, 2-[[3,4-dihydro-2-(3-nitrophenyl)-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



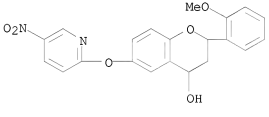
RN 488849-99-6 HCAPLUS
CN 2H-1-Benzopyran-4-ol, 3,4-dihydro-2-(4-methoxyphenyl)-6-[(5-nitro-2-pyridinyl)oxy]- (CA INDEX NAME)



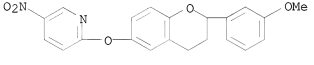
RN 488850-00-6 HCAPLUS
CN 2H-1-Benzopyran-4-ol, 6-[(5-amino-2-pyridinyl)oxy]-3,4-dihydro-2-(4-methoxyphenyl)- (CA INDEX NAME)



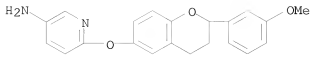
RN 488850-02-8 HCAPLUS
CN 2H-1-Benzopyran-4-ol, 3,4-dihydro-2-(2-methoxyphenyl)-6-[(5-nitro-2-pyridinyl)oxy]- (CA INDEX NAME)



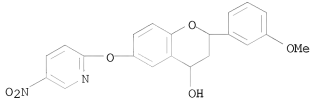
RN 488850-05-1 HCAPLUS
CN Pyridine, 2-[[3,4-dihydro-2-(3-methoxyphenyl)-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



RN 488850-09-5 HCAPLUS
CN 3-Pyridinamine, 6-[[3,4-dihydro-2-(3-methoxyphenyl)-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



RN 488850-11-9 HCAPLUS
CN 2H-1-Benzopyran-4-ol, 3,4-dihydro-2-(3-methoxyphenyl)-6-[(5-nitro-2-pyridinyl)oxy]- (CA INDEX NAME)

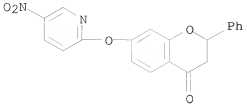


IT 488847-53-6P, 7-[(5-Nitropyridin-2-yl)oxy]-2-phenylchroman-4-one 488847-69-4P, 5-Nitro-2-[(2-phenylchroman-7-yl)oxy]pyridine 488847-76-3P, 2-[[2-(2,4-Dichlorophenyl)chroman-6-yl]oxy]-5-nitropyridine 488847-84-3P, 2-[[2-(3-Chlorophenyl)chroman-6-yl]oxy]-5-nitropyridine 488847-92-3P, 2-[[2-(3,5-Difluorophenyl)chroman-6-yl]oxy]-5-nitropyridine 488848-04-0P, 2-[[2-(3-Bromophenyl)chroman-6-yl]oxy]-5-nitropyridine 488848-12-0P, 2-[[2-(4-Ethylphenyl)chroman-6-yl]oxy]-5-nitropyridine 488848-20-0P, 2-[(3-Methyl-2-phenylchroman-6-yl)oxy]-5-nitropyridine 488848-28-8P, 3-Methyl-6-[(5-nitropyridin-2-yl)oxy]-2-phenylchroman-4-one 488848-38-0P, 2-[(2,3-Dihydro-2-phenylbenzo[1,4]dioxin-6-yl)oxy]-5-nitropyridine 488848-51-7P, 2-[(2,3-Dihydro-2-phenylbenzo[1,4]dioxin-6-yl)oxy]-3-nitropyridine 488848-53-9P, 2-[(2,3-Dihydro-2-phenylbenzo[1,4]dioxin-6-yl)oxy]-5-trifluoromethylpyridine 488848-54-0P, 5-Nitro-2-[(6-phenyl-5,6,7,8-tetrahydronaphthalen-2-yl)oxy]pyridine 488848-55-1P, 6-[(5-Nitropyridin-2-yl)oxy]-2-phenyl-3,4-dihydro-2H-naphthalen-1-one 488848-59-5P, 5-Acetylamino-2-[(2-phenylchroman-6-yl)oxy]pyridine 488848-60-8P, 5-(N,N-Diacetylamino)-2-[(2-phenylchroman-6-yl)oxy]pyridine 488848-78-8P, 3-Nitro-2-[(2-phenylchroman-6-yl)oxy]pyridine 488848-84-6P, 5-Succinimido-2-[(2-phenylchroman-6-yl)oxy]-pyridine 488848-86-8P 488849-10-1P, N-[6-[(2-Phenylchroman-6-yl)oxy]pyridin-3-yl]methanesulfonamide 488849-11-2P, 1-Methyl-3-[6-[(2-phenylchroman-6-yl)oxy]pyridin-3-yl]thiourea 488849-12-3P, 3-[6-[(5-Nitropyridin-2-yl)oxy]chroman-2-yl]phenol 488849-16-7P, N-[6-[[2-(2,5-Difluorophenyl)chroman-6-yl]oxy]pyridin-3-yl]acetamide 488849-18-9P, N-[6-[[2-(2-Fluorophenyl)chroman-6-yl]oxy]pyridin-3-yl]acetamide 488849-19-0P, N-[6-[[2-(2-Fluorophenyl)chroman-6-yl]oxy]pyridin-3-yl]methanesulfonamide 488849-21-4P, N-[6-[[2-(3-Fluorophenyl)chroman-6-yl]oxy]pyridin-3-yl]acetamide 488849-22-5P, 6-[(5-Aminopyridin-2-yl)oxy]-2-phenylchroman-4-one 488849-23-6P, Acetic acid 6-[(5-nitropyridin-2-yl)oxy]-2-phenylchroman-4-yl ester

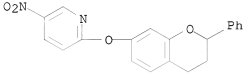
488849-27-0P, 2-(3-Bromophenyl)-6-[(5-nitropyridin-2-yl)oxy]chroman-4-ol 488849-28-1P, 2-(2-Fluorophenyl)-6-[(5-nitropyridin-2-yl)oxy]chroman-4-ol 488849-29-2P, 2-(2,5-Difluorophenyl)-6-[(5-nitropyridin-2-yl)oxy]chroman-4-ol 488849-30-5P, 2-(3-Fluorophenyl)-6-[(5-nitropyridin-2-yl)oxy]chroman-4-ol 488849-38-3P, N-[6-[[2-(4-Trifluoromethylphenyl)chroman-6-yl]oxy]pyridin-3-yl]acetamide 488849-39-4P, N-[6-[[2-(3-Fluorophenyl)chroman-6-yl]oxy]pyridin-3-yl]methanesulfonamide 488849-40-7P, 2-(4-Chlorophenyl)-6-[(5-nitropyridin-2-yl)oxy]chroman-4-ol 488849-48-5P, N-[6-[[2-(2,4-Difluorophenyl)chroman-6-yl]oxy]pyridin-3-yl]methanesulfonamide 488849-49-6P, 2-(2,4-Difluorophenyl)-6-[(5-nitropyridin-2-yl)oxy]chroman-4-ol 488849-50-9P, 2-[[2-(2-Chlorophenyl)chroman-6-yl]oxy]-5-nitropyridine 488849-54-3P, 2-(2-Chlorophenyl)-6-[(5-nitropyridin-2-yl)oxy]chroman-4-ol 488849-60-1P, N-[6-[[2-(4-Fluorophenyl)chroman-6-yl]oxy]pyridin-3-yl]methanesulfonamide 488849-61-2P, 2-[[2-(2,3-Difluorophenyl)chroman-6-yl]oxy]-5-nitropyridine 488849-65-6P, 2-(2,6-Difluorophenyl)-6-[(5-nitropyridin-2-yl)oxy]chroman-4-ol 488849-68-9P, 6-[(5-Nitropyridin-2-yl)oxy]-2-(2-trifluoromethylphenyl)chroman-4-ol 488849-71-4P, 2-[[3-(3-Fluorophenyl)chroman-7-yl]oxy]-5-nitropyridine 488849-76-9P, 5-Nitro-2-[(3-phenylchroman-7-yl)oxy]pyridine 488849-82-7P, 5-Nitro-2-[(4-oxo-2-phenyl-3,4-dihydrobenzo[1,4]oxathiin-6-yl)oxy]pyridine 488849-83-8P, 2-[(4,4-Dioxo-2-phenyl-3,4-dihydrobenzo[1,4]oxathiin-6-yl)oxy]-5-nitropyridine 488849-88-3P, [6-[[2-(4-Aminophenyl)chroman-6-yl]oxy]pyridin-3-yl]amine 488849-94-1P, N-[6-[[2-(2-Acetylaminophenyl)chroman-6-yl]oxy]pyridin-3-yl]acetamide 488849-98-5P, [6-[[2-(3-Aminophenyl)chroman-6-yl]oxy]pyridin-3-yl]amine 488850-01-7P, N-[6-[[4-Hydroxy-2-(4-methoxyphenyl)chroman-6-yl]oxy]pyridin-3-yl]acetamide 488850-04-0P, 6-[(5-Aminopyridin-2-yl)oxy]-2-(2-methoxyphenyl)chroman-4-ol 488850-10-8P, N-[6-[[2-(3-Methoxyphenyl)chroman-6-yl]oxy]pyridin-3-yl]acetamide 488850-12-0P, 6-[(5-Aminopyridin-2-yl)oxy]-2-(3-methoxyphenyl)chroman-4-ol 488850-13-1P, [6-[(2-Phenyl-2,3-dihydrobenzo[1,4]oxathiin-6-yl)oxy]pyridin-3-yl]amine dihydrochloride 488850-14-2P, N-[6-[(2-Phenyl-2,3-dihydrobenzo[1,4]oxathiin-6-yl)oxy]pyridin-3-yl]acetamide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antiarrhythmic; preparation of Ph chromans, benzo[1,4]dioxins, indans, and naphthalenes as potent inhibitors of Na+/Ca2+ exchange mechanism for treatment of arrhythmias)

RN 488847-53-6 HCAPLUS

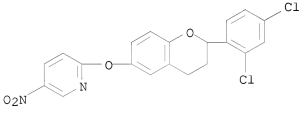
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-[(5-nitro-2-pyridinyl)oxy]-2-phenyl- (CA INDEX NAME)



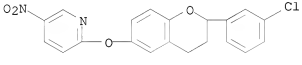
RN 488847-69-4 HCAPLUS
CN Pyridine, 2-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-7-yl)oxy]-5-nitro- (CA INDEX NAME)



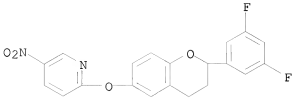
RN 488847-76-3 HCAPLUS
CN Pyridine, 2-[[2-(2,4-dichlorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



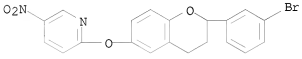
RN 488847-84-3 HCAPLUS
CN Pyridine, 2-[[2-(3-chlorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



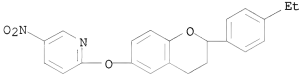
RN 488847-92-3 HCAPLUS
CN Pyridine, 2-[[2-(3,5-difluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



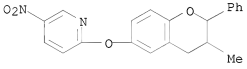
RN 488848-04-0 HCAPLUS
CN Pyridine, 2-[[2-(3-bromophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



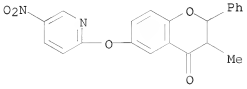
RN 488848-12-0 HCAPLUS
CN Pyridine, 2-[[2-(4-ethylphenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



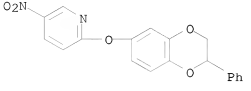
RN 488848-20-0 HCAPLUS
CN Pyridine, 2-[(3,4-dihydro-3-methyl-2-phenyl-2H-1-benzopyran-6-yl)oxy]-5-nitro- (CA INDEX NAME)



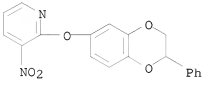
RN 488848-28-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-3-methyl-6-[(5-nitro-2-pyridinyl)oxy]-2-phenyl- (CA INDEX NAME)



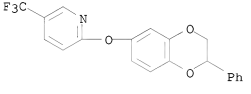
RN 488848-38-0 HCAPLUS
CN Pyridine, 2-[(2,3-dihydro-2-phenyl-1,4-benzodioxin-6-yl)oxy]-5-nitro- (CA INDEX NAME)



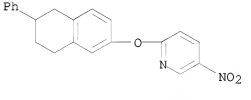
RN 488848-51-7 HCAPLUS
CN Pyridine, 2-[(2,3-dihydro-2-phenyl-1,4-benzodioxin-6-yl)oxy]-3-nitro- (CA INDEX NAME)



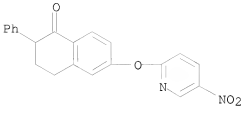
RN 488848-53-9 HCAPLUS
CN Pyridine, 2-[(2,3-dihydro-2-phenyl-1,4-benzodioxin-6-yl)oxy]-5-(trifluoromethyl)- (CA INDEX NAME)



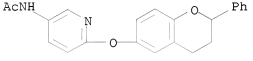
RN 488848-54-0 HCAPLUS
CN Pyridine, 5-nitro-2-[(5,6,7,8-tetrahydro-6-phenyl-2-naphthalenyl)oxy]- (CA INDEX NAME)



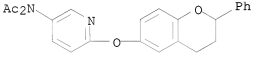
RN 488848-55-1 HCAPLUS
CN 1(2H)-Naphthalenone, 3,4-dihydro-6-[(5-nitro-2-pyridinyl)oxy]-2-phenyl- (CA INDEX NAME)



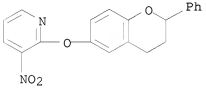
RN 488848-59-5 HCAPLUS
CN Acetamide, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]- (CA INDEX NAME)



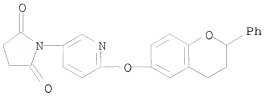
RN 488848-60-8 HCAPLUS
CN Acetamide, N-acetyl-N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]- (CA INDEX NAME)



RN 488848-78-8 HCAPLUS
CN Pyridine, 2-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-nitro- (CA INDEX NAME)

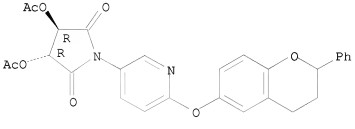


RN 488848-84-6 HCAPLUS
CN 2,5-Pyrrolidinedione, 1-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]- (CA INDEX NAME)

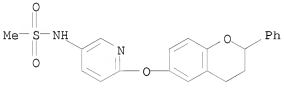


RN 488848-86-8 HCAPLUS
CN 2,5-Pyrrolidinedione, 3,4-bis(acetyloxy)-1-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-, (3R,4R)- (CA INDEX NAME)

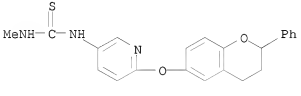
Absolute stereochemistry.



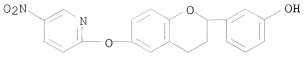
RN 488849-10-1 HCAPLUS
CN Methanesulfonamide, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]- (CA INDEX NAME)



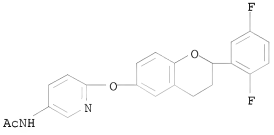
RN 488849-11-2 HCAPLUS
CN Thiourea, N-[6-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-3-pyridinyl]-N'-methyl- (CA INDEX NAME)



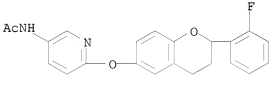
RN 488849-12-3 HCAPLUS
CN Phenol, 3-[3,4-dihydro-6-[(5-nitro-2-pyridinyl)oxy]-2H-1-benzopyran-2-yl]- (CA INDEX NAME)



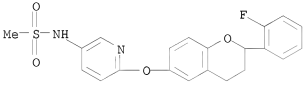
RN 488849-16-7 HCAPLUS
CN Acetamide, N-[6-[[2-(2,5-difluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]- (CA INDEX NAME)



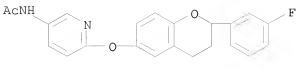
RN 488849-18-9 HCAPLUS
CN Acetamide, N-[6-[[2-(2-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]- (CA INDEX NAME)



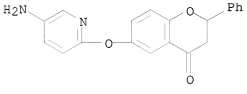
RN 488849-19-0 HCAPLUS
CN Methanesulfonamide, N-[6-[[2-(2-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]- (CA INDEX NAME)



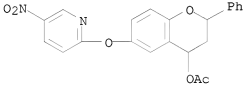
RN 488849-21-4 HCAPLUS
CN Acetamide, N-[6-[[2-(3-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]- (CA INDEX NAME)



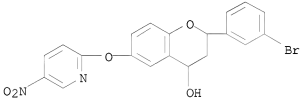
RN 488849-22-5 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[(5-amino-2-pyridinyl)oxy]-2,3-dihydro-2-phenyl- (CA INDEX NAME)



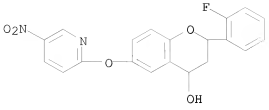
RN 488849-23-6 HCAPLUS
CN 2H-1-Benzopyran-4-ol, 3,4-dihydro-6-[(5-nitro-2-pyridinyl)oxy]-2-phenyl-, 4-acetate (CA INDEX NAME)



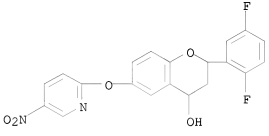
RN 488849-27-0 HCAPLUS
CN 2H-1-Benzopyran-4-ol, 2-(3-bromophenyl)-3,4-dihydro-6-[(5-nitro-2-pyridinyl)oxy]- (CA INDEX NAME)



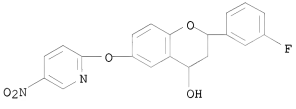
RN 488849-28-1 HCAPLUS
CN 2H-1-Benzopyran-4-ol, 2-(2-fluorophenyl)-3,4-dihydro-6-[(5-nitro-2-pyridinyl)oxy]- (CA INDEX NAME)



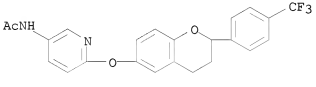
RN 488849-29-2 HCAPLUS
CN 2H-1-Benzopyran-4-ol, 2-(2,5-difluorophenyl)-3,4-dihydro-6-[(5-nitro-2-pyridinyl)oxy]- (CA INDEX NAME)



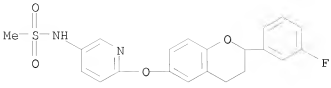
RN 488849-30-5 HCAPLUS
CN 2H-1-Benzopyran-4-ol, 2-(3-fluorophenyl)-3,4-dihydro-6-[(5-nitro-2-pyridinyl)oxy]- (CA INDEX NAME)



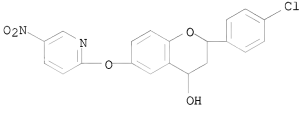
RN 488849-38-3 HCAPLUS
CN Acetamide, N-[6-[[3,4-dihydro-2-[4-(trifluoromethyl)phenyl]-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]- (CA INDEX NAME)



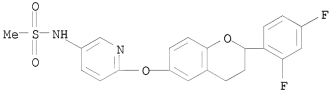
RN 488849-39-4 HCAPLUS
CN Methanesulfonamide, N-[6-[[2-(3-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]- (CA INDEX NAME)



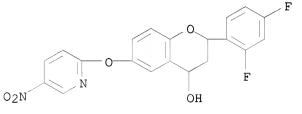
RN 488849-40-7 HCAPLUS
CN 2H-1-Benzopyran-4-ol, 2-(4-chlorophenyl)-3,4-dihydro-6-[(5-nitro-2-pyridinyl)oxy]- (CA INDEX NAME)



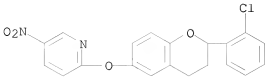
RN 488849-48-5 HCAPLUS
CN Methanesulfonamide, N-[6-[[2-(2,4-difluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]- (CA INDEX NAME)



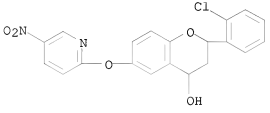
RN 488849-49-6 HCAPLUS
CN 2H-1-Benzopyran-4-ol, 2-(2,4-difluorophenyl)-3,4-dihydro-6-[(5-nitro-2-pyridinyl)oxy]- (CA INDEX NAME)



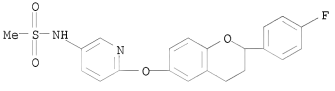
RN 488849-50-9 HCAPLUS
CN Pyridine, 2-[[2-(2-chlorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



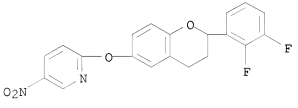
RN 488849-54-3 HCAPLUS
CN 2H-1-Benzopyran-4-ol, 2-(2-chlorophenyl)-3,4-dihydro-6-[(5-nitro-2-pyridinyl)oxy]- (CA INDEX NAME)



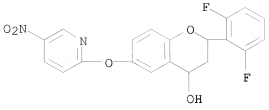
RN 488849-60-1 HCAPLUS
CN Methanesulfonamide, N-[6-[[2-(4-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]- (CA INDEX NAME)



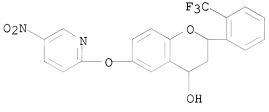
RN 488849-61-2 HCAPLUS
CN Pyridine, 2-[[2-(2,3-difluorophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-5-nitro- (CA INDEX NAME)



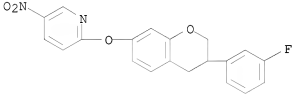
RN 488849-65-6 HCAPLUS
CN 2H-1-Benzopyran-4-ol, 2-(2,6-difluorophenyl)-3,4-dihydro-6-[(5-nitro-2-pyridinyl)oxy]- (CA INDEX NAME)



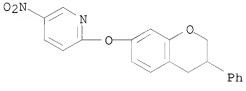
RN 488849-68-9 HCAPLUS
CN 2H-1-Benzopyran-4-ol, 3,4-dihydro-6-[(5-nitro-2-pyridinyl)oxy]-2-[2-(trifluoromethyl)phenyl]- (CA INDEX NAME)



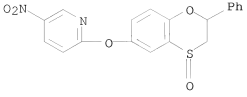
RN 488849-71-4 HCAPLUS
CN Pyridine, 2-[[3-(3-fluorophenyl)-3,4-dihydro-2H-1-benzopyran-7-yl]oxy]-5-nitro- (CA INDEX NAME)



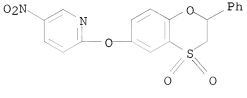
RN 488849-76-9 HCAPLUS
CN Pyridine, 2-[(3,4-dihydro-3-phenyl-2H-1-benzopyran-7-yl)oxy]-5-nitro- (CA INDEX NAME)



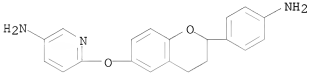
RN 488849-82-7 HCAPLUS
CN Pyridine, 2-[(2,3-dihydro-4-oxido-2-phenyl-1,4-benzoxathiin-6-yl)oxy]-5-nitro- (CA INDEX NAME)



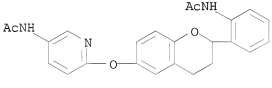
RN 488849-83-8 HCAPLUS
CN Pyridine, 2-[(2,3-dihydro-4,4-dioxido-2-phenyl-1,4-benzoxathiin-6-yl)oxy]-5-nitro- (CA INDEX NAME)



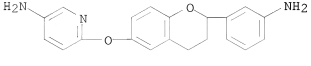
RN 488849-88-3 HCAPLUS
CN 3-Pyridinamine, 6-[[2-(4-aminophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



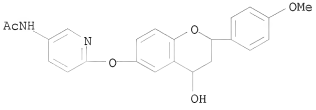
RN 488849-94-1 HCAPLUS
CN Acetamide, N-[6-[[2-[2-(acetylamino)phenyl]-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]- (CA INDEX NAME)



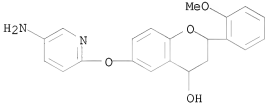
RN 488849-98-5 HCAPLUS
CN 3-Pyridinamine, 6-[[2-(3-aminophenyl)-3,4-dihydro-2H-1-benzopyran-6-yl]oxy]- (CA INDEX NAME)



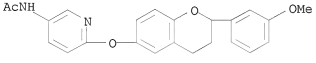
RN 488850-01-7 HCAPLUS
CN Acetamide, N-[6-[[3,4-dihydro-4-hydroxy-2-(4-methoxyphenyl)-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]- (CA INDEX NAME)



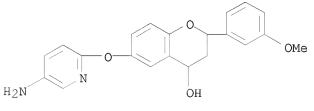
RN 488850-04-0 HCAPLUS
CN 2H-1-Benzopyran-4-ol, 6-[(5-amino-2-pyridinyl)oxy]-3,4-dihydro-2-(2-methoxyphenyl)- (CA INDEX NAME)



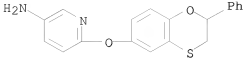
RN 488850-10-8 HCAPLUS
CN Acetamide, N-[6-[[3,4-dihydro-2-(3-methoxyphenyl)-2H-1-benzopyran-6-yl]oxy]-3-pyridinyl]- (CA INDEX NAME)



RN 488850-12-0 HCAPLUS
CN 2H-1-Benzopyran-4-ol, 6-[(5-amino-2-pyridinyl)oxy]-3,4-dihydro-2-(3-methoxyphenyl)- (CA INDEX NAME)

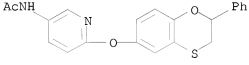


RN 488850-13-1 HCAPLUS
CN 3-Pyridinamine, 6-[(2,3-dihydro-2-phenyl-1,4-benzoxathiin-6-yl)oxy]-, hydrochloride (1:2) (CA INDEX NAME)

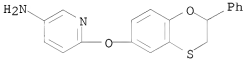


●2 HCl

RN 488850-14-2 HCAPLUS
CN Acetamide, N-[6-[(2,3-dihydro-2-phenyl-1,4-benzoxathiin-6-yl)oxy]-3-pyridinyl]- (CA INDEX NAME)



IT 488850-15-3, [6-[(2-Phenyl-2,3-dihydrobenzo[1,4]oxathiin-6-yl)oxy]pyridin-3-yl]amine
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of Ph chromans, benzo[1,4]dioxins, indans, and naphthalenes as potent inhibitors of Na+/Ca2+ exchange mechanism for treatment of arrhythmias)
RN 488850-15-3 HCAPLUS
CN 3-Pyridinamine, 6-[(2,3-dihydro-2-phenyl-1,4-benzoxathiin-6-yl)oxy]- (CA INDEX NAME)



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10541677

FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

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This file supports REGlstRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

CAOLD will be discontinued and removed from associated database clusters.

- November 22, 2008 - removed from database clusters
- December 31, 2008 - removed from STN

Content previously available only in CAOLD is now available in CA/CAplus. To learn more about the options available for transferring saved search queries and answer sets to CA/CAplus, contact your STN Service Center.

=> d his

(FILE 'HOME' ENTERED AT 17:34:33 ON 05 SEP 2008)

FILE 'REGISTRY' ENTERED AT 17:35:00 ON 05 SEP 2008
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L8 1 S L7

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L9 0 S L7

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L14 1 S L13

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L15             0 S L13

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L16               STRUCTURE UPLOADED
L17            14 S L16
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L19             2 S L18
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     FILE 'CAOLD' ENTERED AT 17:48:39 ON 05 SEP 2008

=> s l18
L21             0 L18

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FULL ESTIMATED COST                                 0.92     575.28

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)      SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE                                 0.00      -3.20

FILE 'REGISTRY' ENTERED AT 17:49:36 ON 05 SEP 2008
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STRUCTURE FILE UPDATES:    4 SEP 2008  HIGHEST RN 1046534-52-4
DICTIONARY FILE UPDATES:   4 SEP 2008  HIGHEST RN 1046534-52-4

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TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

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L22     STRUCTURE UPLOADED
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SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
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DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
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FILE 'HCAPLUS' ENTERED AT 17:53:07 ON 05 SEP 2008
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FILE COVERS 1907 - 5 Sep 2008  VOL 149 ISS 11
FILE LAST UPDATED: 4 Sep 2008  (20080904/ED)

HCAplus now includes complete International Patent Classification (IPC)
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reclassification data for the second quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L26  ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2003:58077  HCAPLUS
DOCUMENT NUMBER:          138:122550
TITLE:                    Preparation of phenyl chromans, benzo[1,4]dioxins,
                          indans, and naphthalenes as potent inhibitors of
                          Na+/Ca2+ exchange mechanism for treatment of
                          arrhythmias
INVENTOR(S):              Koskelainen, Tuula; Otsomaa, Leena;
                          Karjalainen, Arto; Kotovuori, Pekka; Tenhunen, Jukka;
                          Rasku, Sirpa; Nore, Pentti; Tiainen, Eija;
                          Toermaekangas, Olli
PATENT ASSIGNEE(S):       Orion Corporation, Finland
SOURCE:                   PCT Int. Appl., 98 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
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     CA 2452918           A1    20030123    CA 2002-2452918        20020710
     AU 2002321339        A1    20030129    AU 2002-321339         20020710
     AU 2002321339        B2    20070621
     EP 1412343           A1    20040428    EP 2002-755036         20020710
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OTHER SOURCE(S): MARPAT 138:122550

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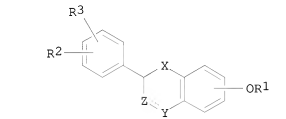

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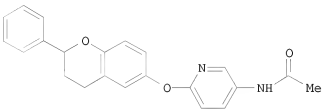


II

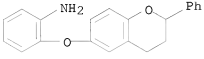
AB Title therapeutically active compds. I [wherein X = O, CH2, or CO; Z = CHR9 or bond; Y = CH2, CO, CHOR10, CHNR11R12, O, S, SO, or SO2, provided that when Z = a bond, Y ≠ CO; the dashed line = optional double bond when Z = CR9 and Y = CH, COR10, or CNR11R12; R1 = (CH2)nNR4R7 or dihydroimidazolylmethyl or (un)substituted 2-aminophenyl or 2-pyridyl; n = 1-4; R2 and R3 = independently H, alkyl, alkoxy, NO2, halo, CF3, OH, NHR8, or CO2H; R4 and R7 = independently H or (hydroxy)alkyl; R8 = H or acyl; R9 = H or alkyl; R10 = H, alkylsulfonyl, or acyl; R11 and R12 = independently H, alkyl, or acyl; and pharmaceutically acceptable salts and esters thereof] were prepared as inhibitors of Na+/Ca2+ exchange mechanism in cells. For example, 6-hydroxyflavanone was reduced to 2-phenylchroman-6-ol and coupled with 2-chloro-5-nitropyridine. Reduction to the amine using glacial acetic acid and Zn powder followed by acetylation

gave 5-(acetylamino)-2-(2-phenylchroman-6-yloxy)pyridine (II). The latter delayed the appearance (38 ± 7.5 min vs. vehicle) and decreased the amplitude (74 ± 16 mg vs. vehicle) of ouabain-induced arrhythmias in guinea-pig papillary muscles at a concentration of 30 μM. Thus, I are useful for the treatment of arrhythmias.

IT 488848-61-9P, 2-[(2-Phenylchroman-6-yl)oxy]aniline
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(antiarrhythmic; preparation of Ph chromans, benzo[1,4]dioxins, indans, and naphthalenes as potent inhibitors of Na+/Ca2+ exchange mechanism for treatment of arrhythmias)

RN 488848-61-9 HCAPLUS

CN Benzenamine, 2-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]- (CA INDEX NAME)



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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antiarrhythmic; preparation of Ph chromans, benzo[1,4]dioxins, indans, and naphthalenes as potent inhibitors of Na+/Ca2+ exchange mechanism for treatment of arrhythmias)

RN 488847-34-3 HCAPLUS

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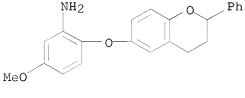

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RN 488848-56-2 HCAPLUS
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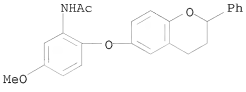

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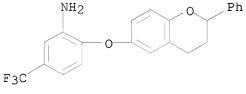

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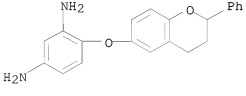

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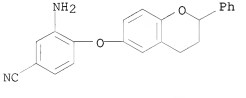

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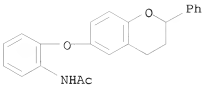
CN Acetamide, N-[2-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]phenyl]- (CA INDEX NAME)



RN 488848-80-2 HCAPLUS
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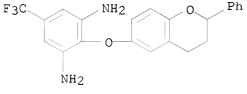

RN 488849-31-6 HCAPLUS
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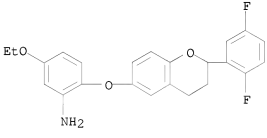
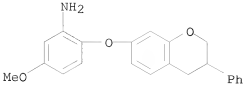


● HCl

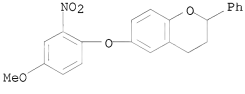
RN 488849-77-0 HCAPLUS
CN Benzenamine, 2-[(3,4-dihydro-3-phenyl-2H-1-benzopyran-7-yl)oxy]-5-methoxy-, hydrochloride (1:1) (CA INDEX NAME)



● HCl

IT 488847-36-5P, 6-(4-Methoxy-2-nitrophenoxy)-2-phenylchroman
488848-62-0P, 2-Nitro-1-[(2-phenylchroman-6-yl)oxy]benzene
488848-66-4P, 2-Nitro-1-[(2-phenylchroman-6-yl)oxy]-4-trifluoromethylbenzene 488848-70-0P, 2,4-Dinitro-1-[(2-phenylchroman-6-yl)oxy]benzene 488848-74-4P, 4-Cyano-2-nitro-1-[(2-phenylchroman-6-yl)oxy]benzene 488848-82-4P, 2,6-Dinitro-1-[(2-phenylchroman-6-yl)oxy]-4-trifluoromethylbenzene 488849-32-7P, 2-(2,5-Difluorophenyl)-6-(4-ethoxy-2-nitrophenoxy)chroman 488849-78-1P, 7-(4-Methoxy-2-nitrophenoxy)-3-phenylchroman
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of Ph chromans, benzo[1,4]dioxins, indans, and naphthalenes as potent inhibitors of Na+/Ca2+ exchange mechanism for treatment of arrhythmias)

RN 488847-36-5 HCAPLUS
CN 2H-1-Benzopyran, 3,4-dihydro-6-(4-methoxy-2-nitrophenoxy)-2-phenyl- (CA INDEX NAME)



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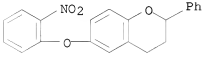

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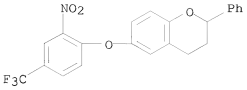

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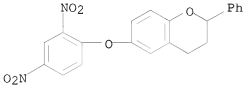

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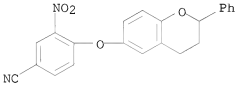

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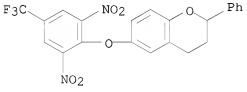

RN 488849-32-7 HCAPLUS
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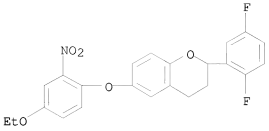

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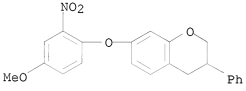
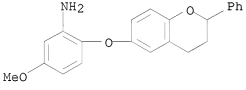


IT 488848-57-3, 3-Amino-4-[(2-phenylchroman-6-yl)oxy]anisole
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of Ph chromans, benzo[1,4]dioxins, indans, and naphthalenes as potent inhibitors of Na+/Ca2+ exchange mechanism for treatment of arrhythmias)
RN 488848-57-3 HCAPLUS
CN Benzenamine, 2-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]-5-methoxy- (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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     FILE 'HCAPLUS' ENTERED AT 17:45:55 ON 05 SEP 2008
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L15            0 S L13

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L16              STRUCTURE UPLOADED
L17           14 S L16
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=> s l27/uses
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You may have tried to apply a field code to a term that already has a
field code.  You can only add a field code to a term that has no field
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L30  ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2003:58077  HCAPLUS
DOCUMENT NUMBER:          138:122550
TITLE:                    Preparation of phenyl chromans, benzo[1,4]dioxins,
                          indans, and naphthalenes as potent inhibitors of
                          Na+/Ca2+ exchange mechanism for treatment of
                          arrhythmias
INVENTOR(S):              Koskelainen, Tuula; Otsomaa, Leena;
                          Karjalainen, Arto; Kotovuori, Pekka; Tenhunen, Jukka;
                          Rasku, Sirpa; Nore, Pentti; Tiainen, Eija;
                          Toermaekangas, Olli
PATENT ASSIGNEE(S):       Orion Corporation, Finland
SOURCE:                   PCT Int. Appl., 98 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

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             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
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     CN 1525966             A     20040901    CN 2002-813863          20020710
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MX 2004PA00267	A	20040723	MX 2004-PA267		20040109
US 20040235905	A1	20041125	US 2004-482396		20040608
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OTHER SOURCE(S): MARPAT 138:122550

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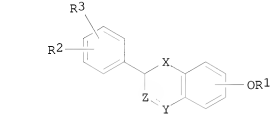

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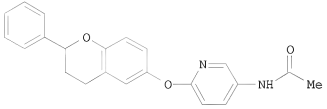

II

AB Title therapeutically active compds. I [wherein X = O, CH2, or CO; Z = CHR9 or bond; Y = CH2, CO, CHOR10, CHNR11R12, O, S, SO, or SO2, provided that when Z = a bond, Y ≠ CO; the dashed line = optional double bond when Z = CR9 and Y = CH, COR10, or CNR11R12; R1 = (CH2)nNR4R7 or dihydroimidazolylmethyl or (un)substituted 2-aminophenyl or 2-pyridyl; n = 1-4; R2 and R3 = independently H, alkyl, alkoxy, NO2, halo, CF3, OH, NHR8, or CO2H; R4 and R7 = independently H or (hydroxy)alkyl; R8 = H or acyl; R9 = H or alkyl; R10 = H, alkylsulfonyl, or acyl; R11 and R12 = independently H, alkyl, or acyl; and pharmaceutically acceptable salts and esters thereof] were prepared as inhibitors of Na+/Ca2+ exchange mechanism in cells. For example, 6-hydroxyflavanone was reduced to 2-phenylchroman-6-ol and coupled with 2-chloro-5-nitropyridine. Reduction to the amine using glacial acetic acid and Zn powder followed by acetylation gave 5-(acetylamino)-2-(2-phenylchroman-6-yloxy)pyridine (II). The latter delayed the appearance (38 ± 7.5 min vs. vehicle) and decreased the amplitude (74 ± 16 mg vs. vehicle) of ouabain-induced arrhythmias in guinea-pig papillary muscles at a concentration of 30 μM. Thus, I are useful for the treatment of arrhythmias.

IT 488848-61-9P, 2-[(2-Phenylchroman-6-yl)oxy]aniline
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP

(Preparation); RACT (Reactant or reagent); USES (Uses)
(antiarrhythmic; preparation of Ph chromans, benzo[1,4]dioxins, indans, and naphthalenes as potent inhibitors of Na+/Ca2+ exchange mechanism for treatment of arrhythmias)

RN 488848-61-9 HCAPLUS
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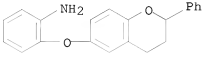

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(antiarrhythmic; preparation of Ph chromans, benzo[1,4]dioxins, indans, and naphthalenes as potent inhibitors of Na+/Ca2+ exchange mechanism for treatment of arrhythmias)

RN 488847-34-3 HCAPLUS
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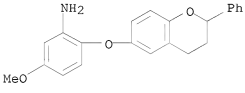

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RN 488848-56-2 HCAPLUS
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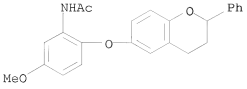

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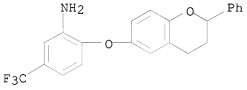

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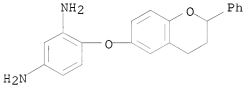

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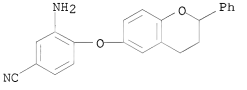

RN 488848-76-6 HCAPLUS
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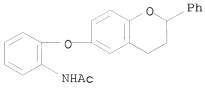

RN 488848-80-2 HCAPLUS
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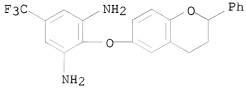

RN 488849-31-6 HCAPLUS
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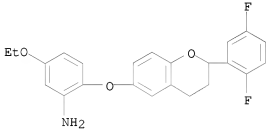

● HCl

RN 488849-77-0 HCAPLUS
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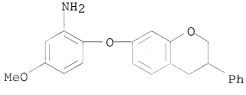

● HCl

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L31  ANSWER 1 OF 42  HCAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2008:191791  HCAPLUS
DOCUMENT NUMBER:          148:246497
TITLE:                    Compositions and methods for potentiating antibiotic
                          activity using an ATP receptor antagonist, coumarin,
                          flavone, or terpene
INVENTOR(S):              Cottarel, Guillaume; Gardner, Timothy S.; Lei,
                          Xiaoguang; Porco, John; Schaus, Scott E.; Wierzbowski,
                          Jamey; Pal, Kollol
PATENT ASSIGNEE(S):       Trustees of Boston University, USA
SOURCE:                   PCT Int. Appl., 102pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
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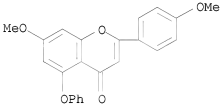
PRIORITY APPLN. INFO.: US 2006-835710P P 20060804
AB The present invention provides compds. that potentiate the activity of antibiotic agents, particularly quinolones, such as norfloxacin. The invention further provides compns., e.g., pharmaceutical compns., comprising the inventive compds. The invention also provides compns. comprising an antibiotic (e.g., a quinolone) and a compound that potentiates activity of the antibiotic and methods of treating a subject comprising administering any of the inventive compds. or compns. to the subject. The invention also provides screening methods to identify compds. that potentiate the activity of an antibiotic, e.g., a quinolone. Thus, both CB101 and CB201 at low concns. (in the lower μg/mL range) were effective against Staphylococcus clin. isolates resistant to ciprofloxacin. CB101 potentiated ciprofloxacin activity after S. aureus infection of mice with moderately fluoroquinolone-resistant S7 Staphylococcus isolate.
IT 1005519-30-1D, derivs.
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ATP receptor antagonist, coumarin, flavone, or terpene for potentiating quinolone antibiotic activity)
RN 1005519-30-1 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-methoxy-2-(4-methoxyphenyl)-5-phenoxy- (CA INDEX NAME)



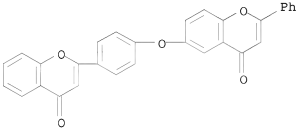
L31 ANSWER 2 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2008:86509 HCAPLUS
DOCUMENT NUMBER: 148:509915
TITLE: Anti-inflammatory and anti-allergic drug composition containing biflavonoid derivatives
INVENTOR(S): Kim, Hyeon Pyo; Park, Hae Il; Jang, Hyeon Uk
PATENT ASSIGNEE(S): Kangwon National University, University-Industry Cooperation Foundation, S. Korea
SOURCE: Repub. Korean Kongkae Taeho Kongbo, 28pp.
CODEN: KRXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Korean
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2007121203	A	20071227	KR 2006-55964	20060621
PRIORITY APPLN. INFO.:			KR 2006-55964	20060621

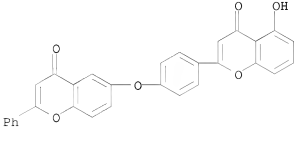
AB The title anti-inflammatory and anti-allergic drug composition contains biflavonoid derivative or its pharmaceutically acceptable salt as the effective component. Biflavonoid derivs. inhibit the activities of phospholipase A2, thus can be used in drug compns. and healthcare foods that can prevent and treat inflammations and allergies.

IT 1022125-75-2 1022125-77-4 1022125-78-5
1022125-79-6 1022125-82-1 1022125-85-4
1022125-86-5 1022125-87-6 1022125-88-7
1022125-89-8 1022125-91-2 1022125-95-6
1022125-96-7 1022125-97-8 1022125-98-9
1022126-00-6 1022126-03-9 1022126-05-1
1022126-06-2 1022126-08-4 1022126-09-5
1022126-13-1 1022126-14-2 1022126-16-4
1022126-17-5
RL: FFD (Food or feed use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-inflammatory and anti-allergic drug composition containing biflavonoid derivs.)

RN 1022125-75-2 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(4-oxo-4H-1-benzopyran-2-yl)phenoxy]-2-phenyl- (CA INDEX NAME)

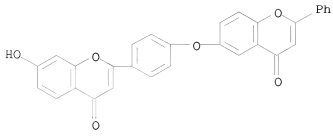


RN 1022125-77-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5-hydroxy-2-[4-[(4-oxo-2-phenyl-4H-1-benzopyran-6-yl)oxy]phenyl]- (CA INDEX NAME)

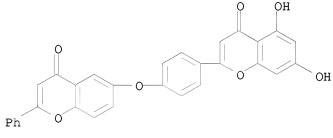


RN 1022125-78-5 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(7-hydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-

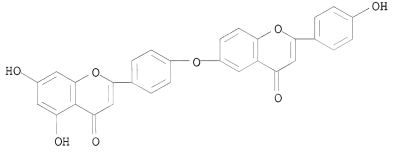
2-phenyl- (CA INDEX NAME)



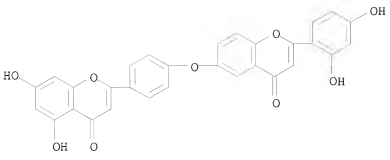
RN 1022125-79-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-[4-[(4-oxo-2-phenyl-4H-1-benzopyran-6-yl)oxy]phenyl]- (CA INDEX NAME)



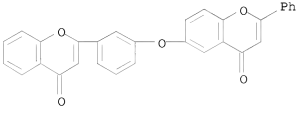
RN 1022125-82-1 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-[4-[[2-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-6-yl]oxy]phenyl]- (CA INDEX NAME)



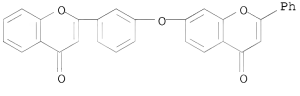
RN 1022125-85-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 2-[4-[[2-(2,4-dihydroxyphenyl)-4-oxo-4H-1-benzopyran-6-yl]oxy]phenyl]-5,7-dihydroxy- (CA INDEX NAME)



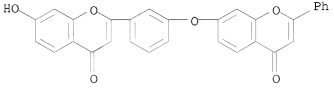
RN 1022125-86-5 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[3-(4-oxo-4H-1-benzopyran-2-yl)phenoxy]-2-phenyl- (CA INDEX NAME)



RN 1022125-87-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[3-(4-oxo-4H-1-benzopyran-2-yl)phenoxy]-2-phenyl- (CA INDEX NAME)

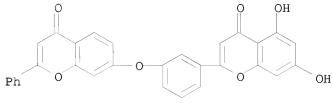


RN 1022125-88-7 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[3-(7-hydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-2-phenyl- (CA INDEX NAME)

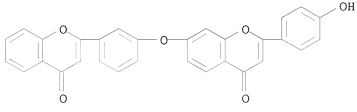


RN 1022125-89-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-[3-[(4-oxo-2-phenyl-4H-1-benzopyran-

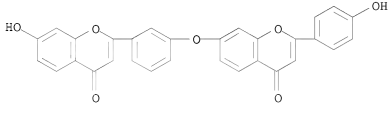
7-yl)oxy]phenyl]- (CA INDEX NAME)



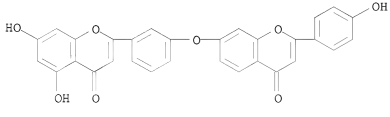
RN 1022125-91-2 HCAPLUS
CN 4H-1-Benzopyran-4-one, 2-(4-hydroxyphenyl)-7-[3-(4-oxo-4H-1-benzopyran-2-yl)phenoxy]- (CA INDEX NAME)



RN 1022125-95-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-2-[3-[[2-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]phenyl]- (CA INDEX NAME)

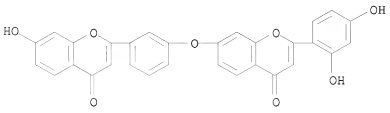


RN 1022125-96-7 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-[3-[[2-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]phenyl]- (CA INDEX NAME)

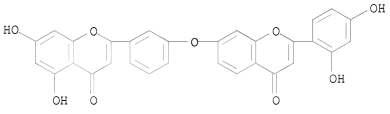


RN 1022125-97-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 2-(2,4-dihydroxyphenyl)-7-[3-(7-hydroxy-4-oxo-4H-1-

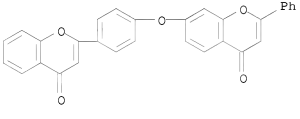
benzopyran-2-yl)phenoxy]- (CA INDEX NAME)



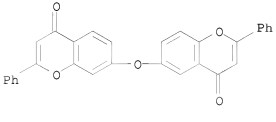
RN 1022125-98-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 2-[3-[[2-(2,4-dihydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]phenyl]-5,7-dihydroxy- (CA INDEX NAME)



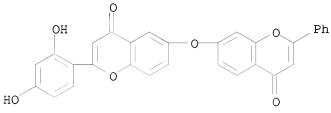
RN 1022126-00-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[4-(4-oxo-4H-1-benzopyran-2-yl)phenoxy]-2-phenyl- (CA INDEX NAME)



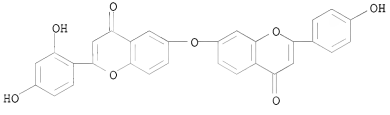
RN 1022126-03-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[(4-oxo-2-phenyl-4H-1-benzopyran-7-yl)oxy]-2-phenyl- (CA INDEX NAME)



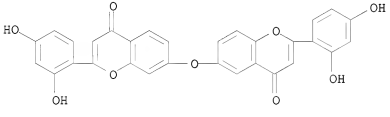
RN 1022126-05-1 HCAPLUS
CN 4H-1-Benzopyran-4-one, 2-(2,4-dihydroxyphenyl)-6-[(4-oxo-2-phenyl-4H-1-benzopyran-7-yl)oxy]- (CA INDEX NAME)



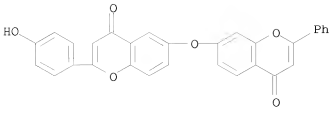
RN 1022126-06-2 HCAPLUS
CN 4H-1-Benzopyran-4-one, 2-(2,4-dihydroxyphenyl)-6-[[2-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (CA INDEX NAME)



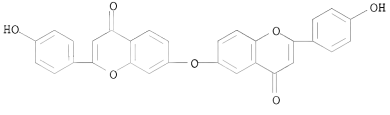
RN 1022126-08-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 2-(2,4-dihydroxyphenyl)-6-[[2-(2,4-dihydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (CA INDEX NAME)



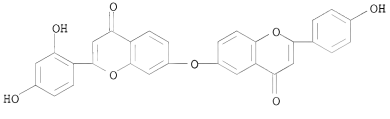
RN 1022126-09-5 HCAPLUS
CN 4H-1-Benzopyran-4-one, 2-(4-hydroxyphenyl)-6-[(4-oxo-2-phenyl-4H-1-benzopyran-7-yl)oxy]- (CA INDEX NAME)



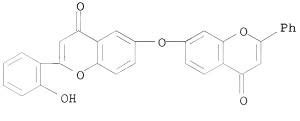
RN 1022126-13-1 HCAPLUS
CN 4H-1-Benzopyran-4-one, 2-(4-hydroxyphenyl)-6-[[2-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (CA INDEX NAME)



RN 1022126-14-2 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[[2-(2,4-dihydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]-2-(4-hydroxyphenyl)- (CA INDEX NAME)

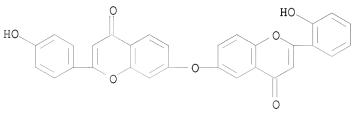


RN 1022126-16-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 2-(2-hydroxyphenyl)-6-[(4-oxo-2-phenyl-4H-1-benzopyran-7-yl)oxy]- (CA INDEX NAME)



RN 1022126-17-5 HCAPLUS

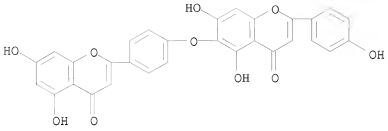
CN 4H-1-Benzopyran-4-one, 2-(2-hydroxyphenyl)-6-[[2-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (CA INDEX NAME)



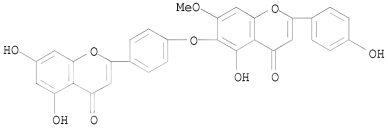
L31 ANSWER 3 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:1158844 HCAPLUS
DOCUMENT NUMBER: 147:474681
TITLE: Composition containing bisflavone compounds for treating gout
INVENTOR(S): Chen, Keli; Tan, Wenjie; Xu, Jiacheng; Li, Li; Jiang, Xueping; Fan, Xiaolei
PATENT ASSIGNEE(S): Hubei College of Traditional Chinese Medicine, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 10pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 101049301	A	20071010	CN 2007-10052157	20070514
PRIORITY APPLN. INFO.:			CN 2007-10052157	20070514

AB The title drug is composed of at least one of purified or un-purified or synthetic robustaflavone, 4'-O-Me robustaflavone, 7''-O-Me robustaflavone, amentoflavone, hinokiflavone, sotetsuflavone, isocryptomerin, bilobetin, ginkgetin, imbricataflavone A, imbricataflavone B, agathisflavone, volkensiflavone, morelloflavone, and 2'', 3''-dihydro-4'-O-Me amentoflavone, and adjuvant. The drug has remarkable oxidation resistance, can alleviate hyperuricemia and its secondary inflammation, and can prevent and treat gout.
IT 19202-36-9, Hinokiflavone 20931-58-2, Isocryptomerin
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(composition containing bisflavone compds. for treating gout)
RN 19202-36-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



RN 20931-58-2 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5-hydroxy-2-(4-hydroxyphenyl)-7-methoxy- (CA INDEX NAME)



L31 ANSWER 4 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:1093960 HCAPLUS
DOCUMENT NUMBER: 147:461924
TITLE: Antiplatelet effect and selective binding to cyclooxygenase (COX) by molecular docking analysis of flavonoids and lignans
AUTHOR(S): Wu, Chien-Ming; Wu, Shu-Chun; Chung, Wan-Jung; Lin, Hsien-Cheng; Chen, Kun-Tze; Chen, Yu-Chian; Hsu, Mei-Feng; Yang, Jwu-Maw; Wang, Jih-Pyang; Lin, Chun-Nan
CORPORATE SOURCE: Department of Physical Medicine and Rehabilitation, Yuan's General Hospital, Kaohsiung, 802, Taiwan
SOURCE: International Journal of Molecular Sciences (2007), 8(8), 830-841
CODEN: IJMCFK; ISSN: 1422-0067
URL: http://www.mdpi.org/ijms/papers/i8080830.pdf
PUBLISHER: Molecular Diversity Preservation International
DOCUMENT TYPE: Journal; (online computer file)
LANGUAGE: English
AB The known flavonoids ginkgetin (1), taiwanhomoflavone A (2), taiwanhomoflavone B (3), and taiwanhomoflavone C (4) and eight known lignans: justicidin B (9), justicidin C (10), justicidin D (11), chinensinaphthol Me ether (12), procumphthalide A (13), procumbenoside A (15), and ciliatosides A (16) and B (17) were isolated from Cephalotaxus wilsoniana and Justicia species, resp. The antiplatelet effects of the above constituents on human platelet-rich plasma (PRP) were evaluated. Of the compds. tested on human PRP, compds. 1, 4, 9, and 11 showed inhibition of secondary aggregation induced by adrenaline. Compound 1 had an

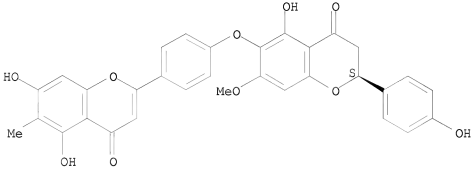
inhibitory effect on cyclooxygenase-1 (COX-1). Mol. docking studies revealed that 1 and the related compds. apigenin (5), cycloheterophyllin (6), broussoflavone F (7), and quercetin (8) were docked near the gate of active site of COX-1. It indicated that the antiplatelet effect of 1, 4, 9, and 11 is partially owed to suppression of COX-1 activity and reduced thromboxane formation. Flavonoids, 1, 5, 6, 7, and 8 may block the gate of the active site of COX-1 and interfere the conversion of arachidonic acid to prostaglandin (PG) H2 in the COX-1 active site.

IT 509077-91-2, Taiwanhomoflavone B
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antiplatelet effect and selective binding to cyclooxygenase by mol. docking anal. of flavonoids and lignans)

RN 509077-91-2 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-6-methyl-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-2,3-dihydro-5-hydroxy-2-(4-hydroxyphenyl)-7-methoxy-, (2S)-(CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 5 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:	2007:966573 HCAPLUS
DOCUMENT NUMBER:	147:315008
TITLE:	Reca inhibitors with antibiotic activity, compositions and methods of use
INVENTOR(S):	Cottarel, Guillaume; Wierzbowski, Jamey; Pal, Kollol; Kohanski, Michael; Dwyer, Daniel; Collins, James; Almstetter, Michael; Thormann, Michael; Treml, Andreas
PATENT ASSIGNEE(S):	Trustees of Boston University, USA; Cellicon Biotechnologies, Inc.; Puretech Ventures
SOURCE:	PCT Int. Appl., 95pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	2
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

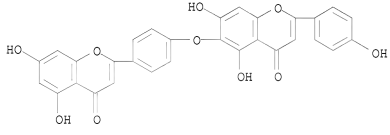
WO 2007097940 A2 20070830 WO 2007-US3712 20070213
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
PRIORITY APPLN. INFO.: US 2006-772648P P 20060213
US 2006-835596P P 20060804
OTHER SOURCE(S): MARPAT 147:315008

AB The invention is directed to the use of RecA inhibitors as antibiotic agents, and provides RecA inhibitors useful in treating infections. Also provided are various compns. and methods associated with RecA inhibition. Hinokiflavone potentiated the antibiotic activity of ciprofloxacin against Staphylococcus aureus by targeting RecA.

IT 19202-36-9, Hinokiflavone
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antibiotic RecA inhibitor compns. and methods for treatment of microbial infections)

RN 19202-36-9 HCAPLUS

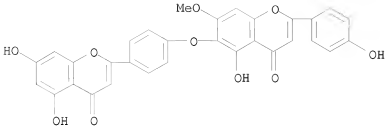
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



IT 20931-58-2, Isocryptomerin
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antibiotic RecA inhibitor compns. and methods for treatment of microbial infections)

RN 20931-58-2 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5-hydroxy-2-(4-hydroxyphenyl)-7-methoxy- (CA INDEX NAME)



L31 ANSWER 6 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:941834 HCAPLUS
DOCUMENT NUMBER: 147:292162
TITLE: Identification of genes playing a role in bacterial antibiotic resistance and screening for compounds potentiating antibiotics
INVENTOR(S): Cottarel, Guillaume; Wierzbowski, Jamey; Pal, Kollol; Kohanski, Michael; Dwyer, Daniel; Collins, James; Almstetter, Michael; Thormann, Michael; Treml, Andreas
PATENT ASSIGNEE(S): Trustees of Boston University, USA; Cellicon Biotechnologies, Inc.; Puretech Ventures
SOURCE: PCT Int. Appl., 216pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007095187	A2	20070823	WO 2007-US3698	20070213

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2006-772648P P 20060213
US 2006-835596P P 20060804
OTHER SOURCE(S): MARPAT 147:292162

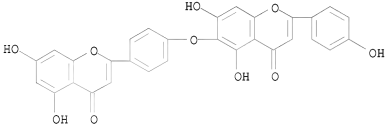
AB Chromosomal genes of bacteria that contribute to endogenous resistance to antibiotics are identified. The genes and their products can be targets for inhibitors that potentiate the activity of the antibiotic, such as a quinolone antibiotic. The method can be used to potentiate the activity of antibiotics such as quinolones, aminoglycosides, peptide antibiotics and β-lactams. These agents can also be used to suppress or delay the development of resistance to antibiotics. A whole genome deletion library of Escherichia coli was screened for deletions that modified the

response of the cell to norfloxacin. The screen identified 188 genes affecting fluoroquinolone sensitivity that were common to Escherichia coli and Staphylococcus aureus. Mutation in the recA gene increased sensitivity to norfloxacin by 104, so inhibitors of the recA DNA-dependent ATPase may be used in combination with fluoroquinolones. Screening of several libraries identified 14 compds. that inhibit the recA recombinase and increase sensitivity to fluoroquinolones.

IT 19202-36-9, Hinokiflavone
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(as inhibitor of RecA recombinase; identification of genes playing role in bacterial antibiotic resistance and screening for compds. potentiating antibiotics)

RN 19202-36-9 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



L31 ANSWER 7 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:502298 HCAPLUS
DOCUMENT NUMBER: 146:481157
TITLE: Beverage composition and method of preventing degradation of vitamins in beverages
INVENTOR(S): Roy, Glenn
PATENT ASSIGNEE(S): Pepsico, Inc., USA
SOURCE: Eur. Pat. Appl., 18pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

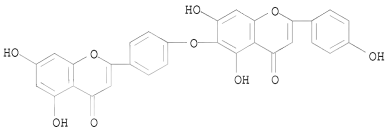
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1782701	A1	20070509	EP 2006-255667	20061103
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
US 20070110851	A1	20070517	US 2005-267376	20051104
CA 2567000	A1	20070504	CA 2006-2567000	20061101
JP 2007125018	A	20070524	JP 2006-298834	20061102
CN 101069563	A	20071114	CN 2006-10130993	20061102
MX 2006PA12784	A	20071010	MX 2006-PA12784	20061103
IN 2006CH02029	A	20071207	IN 2006-CH2029	20061103
PRIORITY APPLN. INFO.:			US 2005-267376 A	20051104

AB A vitamin fortified composition comprising vitamin stabilizers which are C6-C3 phenylpropenoic carbonyl compds. to prevent the degradation of the vitamins is provided. In addition, a method of preventing the degradation of vitamins in a vitamin fortified composition is provided. Thus, a clear lemon-lime carbonated soft drink with vitamin C and ethylene-diaminetetraacetic acid (EDTA) was prepared

IT 19202-36-9, Hinokiflavone
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(beverage composition and method of preventing degradation of vitamins in beverages)

RN 19202-36-9 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 8 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:325265 HCAPLUS

DOCUMENT NUMBER: 147:397867

TITLE: QSAR analysis of the lipid peroxidation inhibitory activity with structure and energetics of 36 flavonoids derivatives

AUTHOR(S): Liao, Hsien-Ren; Chang, Yeong-Sheng; Lin, Yu-Chun; Yang, Ling-Ling; Chou, Yu-Ma; Wang, Bo-Cheng

CORPORATE SOURCE: Department of Chemistry, Tamkang University, Tamsui, 251, Taiwan

SOURCE: Journal of the Chinese Chemical Society (Taipei, Taiwan) (2006), 53(6), 1251-1261
CODEN: JCCTAC; ISSN: 0009-4536

PUBLISHER: Chinese Chemical Society

DOCUMENT TYPE: Journal

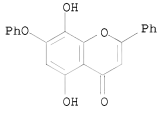
LANGUAGE: English

AB The biol. activity relationship of 36 flavonoid compds. was investigated using theor. methods including quant. structure activity relationships (QSAR) and quantum chemical calcn. The results suggested that the 5 and/or 8 positions of the substituents of the hydroxyl group in the A ring and the 3' and 4' positions of substituents of the hydroxyl group in the B ring play an important role in flavonoid biol. activity. This is probably due to the formation of an intramol. hydrogen bond. In addition, the electronic energy, electrostatic energy and bond energy may have an effect on the biol. activity of flavonoids. Also, our anal. has shown that the presence of the 1,4 and 1,2-hydroquinone in the A ring and/or the B ring of flavonoids and the contribution of electronic energy, electrostatic energy

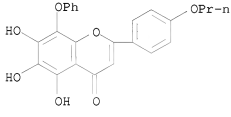
and bond energy required consideration in the generation of the QSAR model and that the potential compds. will be predicted out of 36 flavonoids.

IT 951248-45-6 951248-48-9
RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(QSAR of lipid peroxidn. inhibition by 36 flavonoid derivs.)

RN 951248-45-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,8-dihydroxy-7-phenoxy-2-phenyl- (CA INDEX NAME)



RN 951248-48-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-8-phenoxy-2-(4-propoxyphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 9 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:	2006:1190020 HCAPLUS
DOCUMENT NUMBER:	146:114940
TITLE:	Natural inhibitors targeting osteoclast-mediated bone resorption
AUTHOR(S):	Zeng, Guang-Zhi; Tan, Ning-Hua; Hao, Xiao-Jiang; Mu, Quan-Zhang; Li, Rong-Tao
CORPORATE SOURCE:	State Key Laboratory of Phytochemistry and Plant Resources in West China, Kunming Institute of Botany, Chinese Academy of Sciences, Kunming, 650204, Peop. Rep. China
SOURCE:	Bioorganic & Medicinal Chemistry Letters (2006), 16(24), 6178-6180 CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER:	Elsevier Ltd.
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AB Human cathepsin K, matrix metalloproteinase 9, and αVβ3

integrin are the key regulators in osteoclast-mediated bone resorption. In this paper, we found natural inhibitors 1-10 for them by enzyme inhibition assays. Inhibitors 1-7, 8-9, and 10 are novel inhibitors of human cathepsin K, matrix metalloproteinase 9, and αVβ3, resp.

IT 19202-36-9, Hinokiflavone
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(natural inhibitors targeting osteoclast-mediated bone resorption)

RN 19202-36-9 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 10 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1186406 HCAPLUS

DOCUMENT NUMBER: 146:114227

TITLE: Natural biflavones as novel inhibitors of cathepsin B and K

AUTHOR(S): Zeng, G.-Z.; Pan, X.-L.; Tan, N.-H.; Xiong, J.; Zhang, Y.-M.

CORPORATE SOURCE: State Key Laboratory of Phytochemistry and Plant Resources in West China, Kunming Institute of Botany, Chinese Academy of Sciences, Kunming, 650204, Peop. Rep. China

SOURCE: European Journal of Medicinal Chemistry (2006), 41(11), 1247-1252
CODEN: EJMCA5; ISSN: 0223-5234

PUBLISHER: Elsevier B.V.

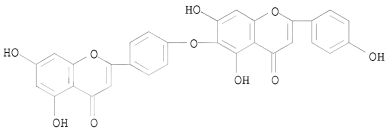
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cathepsin B and K, two important members in lysosomal proteases, involve in many serious human diseases, such as tumor and osteoporosis. In order to find their novel inhibitors, we performed the inhibition assays of cathepsin B and cathepsin K in vitro, randomly screened compds. from plants, and found six biflavones, named AMF1-5 and HIF, can potently inhibit cathepsin B and cathepsin K, especially AMF4 and HIF with IC50 of 0.62 and 0.58 μM against cathepsin B. They are novel inhibitors for cathepsin B and K. Inhibition and flexible docking studies indicated that these biflavones are reversible inhibitors of cathepsin B, and their binding patterns and interaction modes with cathepsin B made them more specific to cathepsin B endopeptidase.

IT 19202-36-9, Hinokiflavone

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(natural biflavones as novel inhibitors of cathepsin B and K)
RN 19202-36-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

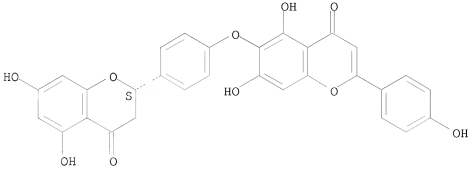
L31 ANSWER 11 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:752385 HCAPLUS
DOCUMENT NUMBER: 145:217766
TITLE: Anticancer drug comprising dihydrohinokiflavone or pharmaceutically acceptable salt thereof as active ingredient
INVENTOR(S): Jung, An Sik; Kim, Ae Yeong; Lee, Ho Jae; Park, Su Jin; Yoon, Sang O.
PATENT ASSIGNEE(S): Korea Advanced Institute of Science and Technology, S. Korea
SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Korean
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2004069833	A	20040806	KR 2003-6381	20030130

PRIORITY APPLN. INFO.: KR 2003-6381 20030130
AB An anticancer drug comprising dihydrohinokiflavone or pharmaceutically acceptable salt thereof as an active ingredient is provided, thereby reducing the expression of matrix metalloproteinases (MMPs) related to metastasis and invasion of cancer cells, and activating p53. The anticancer drug comprises dihydrohinokiflavone isolated from leaves of Metasequoia glyptostroboides or pharmaceutically acceptable salt thereof as an active ingredient, wherein the anticancer drug reduces the expression of matrix metalloproteinase (MMPs) related to metastasis and invasion of cancer cells, the anticancer drug activates p53 related to a cancer inhibitor; and the anticancer drug increases sensitivity of cells to active oxygen species, so that it can be used together with conventional anticancer drug generating active oxygen species.

IT 34292-87-0P
RL: NPO (Natural product occurrence); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(anticancer drug comprising dihydrohinokiflavone or pharmaceutically acceptable salt thereof as active ingredient)
RN 34292-87-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 2-[4-[[5,7-dihydroxy-2-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-6-yl]oxy]phenyl]-2,3-dihydro-5,7-dihydroxy-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

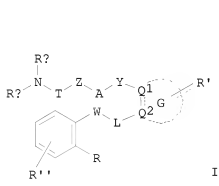


L31 ANSWER 12 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:515356 HCAPLUS
DOCUMENT NUMBER: 145:7883
TITLE: Preparation of naphthalene derivatives as selective estrogen receptor modulators
INVENTOR(S): Hamaoka, Shinichi; Kitazawa, Noritaka; Nara, Kazumasa; Sasaki, Atsushi; Kamada, Atsushi; Okabe, Tadashi
PATENT ASSIGNEE(S): Eisai Co., Ltd., Japan
SOURCE: U.S. Pat. Appl. Publ., 365 pp., Cont.-in-part of Appl. No. PCT/JP03/16808.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060116364	A1	20060601	US 2005-158245	20050622
WO 2004058682	A1	20040715	WO 2003-JP16808	20031225

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,

ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: JP 2002-378729 A 20021226
WO 2003-JP16808 A2 20031225
OTHER SOURCE(S): MARPAT 145:7883
GI



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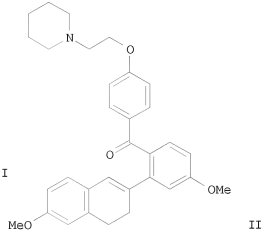


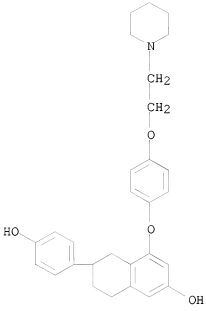
II

AB The title compds. I [wherein T = a single bond, (un)substituted alkylene, alkenylene, or alkynylene; A = a single bond, (un)substituted heterocycle, (hetero)arylene, or cycloalkyl; Y = a single bond, O, S, etc.; Z = CH2O, O, S, etc.; ring G = (hetero)arylene, heterocycle, etc.; Q1 and Q2 = independently N or C; Ra and Rb = independently H, (un)substituted alkyl, alkenyl, alkynyl, etc.; W = a single bond, CO, (un)substituted alkylene, NH, etc.; R' = H, O, S, etc.; R'' = H, OH, halo, etc.; R = H, OH, halo, etc.; L = a single bond, (un)substituted alkylene, alkenylene, or alkynylene] or salts, or hydrates thereof are prepared as selective estrogen receptor modulators. For example, the compound II was prepared in a multi-step synthesis. Representative compds. I showed Ki of 0.2 to 94 nM when tested in in vitro estrogen receptor binding assay.

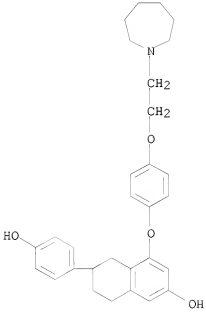
IT 679410-89-0P 722534-26-1P 722534-27-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of naphthalene derivs. as selective estrogen receptor modulators)

RN 679410-89-0 HCAPLUS

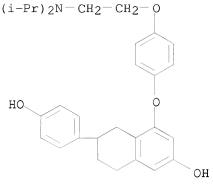
CN 2-Naphthalenol, 5,6,7,8-tetrahydro-6-(4-hydroxyphenyl)-4-[4-[2-(1-piperidinyl)ethoxy]phenoxy]- (CA INDEX NAME)



RN 722534-26-1 HCAPLUS
CN 2-Naphthalenol, 4-[4-[2-(hexahydro-1H-azepin-1-yl)ethoxy]phenoxy]-5,6,7,8-tetrahydro-6-(4-hydroxyphenyl)- (CA INDEX NAME)



RN 722534-27-2 HCAPLUS
CN 2-Naphthalenol, 4-[4-[2-[bis(1-methylethyl)amino]ethoxy]phenoxy]-5,6,7,8-tetrahydro-6-(4-hydroxyphenyl)- (CA INDEX NAME)

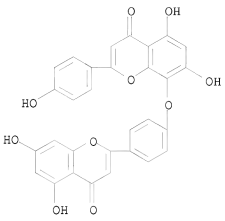


L31 ANSWER 13 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:389401 HCAPLUS
DOCUMENT NUMBER: 145:305712
TITLE: Comparative antiplasmodial, leishmanicidal and antitrypanosomal activities of several biflavonoids
AUTHOR(S): Weniger, B.; Vonthron-Senecheau, C.; Kaiser, M.; Brun, R.; Anton, R.
CORPORATE SOURCE: Pharmacognosie et Biomolecules Naturelles Actives, UMR no 7081, Faculte de Pharmacie, Universite Louis Pasteur Strasbourg, Illkirch, 67401, Fr.
SOURCE: Phytomedicine (2006), 13(3), 176-180
CODEN: PYTOEY; ISSN: 0944-7113
PUBLISHER: Elsevier GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The antiplasmodial, leishmanicidal and antitrypanosomal activities of eight natural biflavonoids were estimated in vitro on a chloroquine-resistant strain of Plasmodium falciparum, axenically grown Leishmania donovani amastigotes and Trypanosoma cruzi trypomastigotes and Trypanosoma brucei rhodesiense bloodstream forms. Lanaroflavone showed the highest antiplasmodial activity (IC50 = 0.48 μM), isoginkgetin was the most active leishmanicidal compound (IC50 = 1.9 μM), whereas ginkgetin (IC50 = 11 μM) and isoginkgetin (IC50 = 13 μM) showed the best antitrypanosomal activity in our assays. The cytotoxicity and the selectivity indexes for the most active compds. were also estimated Lanaroflavone exhibited a high selectivity index value (SI = 159), indicating selective antiplasmodial activity.

IT 521-50-6P, Lanaroflavone
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(bioflavonoid lanaroflavone exhibited strong, moderate antiplasmodial leishmanicidal activity but had no significant effect on antitrypanosomal and cytotoxic activity on rat L-6 myoblast rat cell)

RN 521-50-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



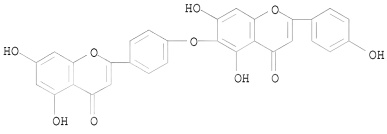
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 14 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:365476 HCAPLUS
DOCUMENT NUMBER: 145:55743
TITLE: Small Molecule Inhibitors of α-Synuclein Filament Assembly
AUTHOR(S): Masuda, Masami; Suzuki, Nobuyuki; Taniguchi, Sayuri; Oikawa, Takayuki; Nonaka, Takashi; Iwatsubo, Takeshi; Hisanaga, Shin-ichi; Goedert, Michel; Hasegawa, Masato
CORPORATE SOURCE: Department of Molecular Neurobiology, Tokyo Institute of Psychiatry, Tokyo, Setagaya-ku, 156-8585, Japan
SOURCE: Biochemistry (2006), 45(19), 6085-6094
CODEN: BICHAW; ISSN: 0006-2960
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB α-Synuclein is the major component of the filamentous inclusions that constitute defining characteristics of Parkinson's disease and other α-synucleinopathies. Here we have tested 79 compds. belonging to 12 different chemical classes for their ability to inhibit the assembly of α-synuclein into filaments in vitro. Several polyphenols, phenothiazines, porphyrins, polyene macrolides, and Congo red and its derivs., BSB and FSB, inhibited α-synuclein filament assembly with IC50 values in the low micromolar range. Many compds. that inhibited α-synuclein assembly were also found to inhibit the formation of Aβ and tau filaments. Biochem. anal. revealed the formation of soluble oligomeric α-synuclein in the presence of inhibitory compds., suggesting that this may be the mechanism by which filament formation is inhibited. Unlike α-synuclein filaments and protofibrils, these soluble oligomeric species did not reduce the viability of SH-SY5Y cells. These findings suggest that the soluble oligomers formed in the presence of inhibitory compds. may not be toxic to nerve cells and that these compds. may therefore have therapeutic potential for α-synucleinopathies and other brain amyloidoses.

IT 19202-36-9, Hinokiflavone
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU

(Therapeutic use); BIOL (Biological study); USES (Uses)
(small mol. inhibitors of α-synuclein filament assembly)
RN 19202-36-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxyl-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 77 THERE ARE 77 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 15 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:13734 HCAPLUS
DOCUMENT NUMBER: 144:101058
TITLE: Composition for preventing or treating acute or chronic degenerative brain diseases including flavonoid derivatives
INVENTOR(S): Han, Byung-Hee; Kang, Sam-Sik; Son, Kun-Ho
PATENT ASSIGNEE(S): Seoul National University Industry Foundation, S. Korea
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006001665	A1	20060105	WO 2005-KR1986	20050624
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
KR 2006000048	A	20060106	KR 2004-48899	20040628
PRIORITY APPLN. INFO.:			KR 2004-48899 A	20040628

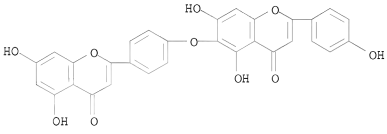
AB Provided is a composition for preventing or treating an acute or chronic degenerative brain disease, the composition including as an effective

ingredient a flavonoid derivative selected from the group consisting of 4',7-dihydroxyflavone; 3',4',7-trihydroxyflavone; 3,3'-di-O-methylquercetin; kaempferide; galangin; morin; amentoflavone; hinokiflavone; ochnaflavone; ochnaflavone 4'-O-Me ether; kaempferol 3-O-(6"-coumaroylglucosyl)(1→2)rhamnoside; quercetin 3-O-(6"-coumaroylglucosyl)(1→ 2)rhamnoside; kaempferol 3-O-glucosyl(1 → 2)rhamnoside; kaempferol 3-O-2",6"-dirhamnosylglucoside; quercetin 3-O-2",6"-dirhamnosylglucoside; and kaempferol 3-O-rutinoside, and a pharmaceutically acceptable carrier.

IT 19202-36-9, Hinokiflavone
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(composition for preventing or treating acute or chronic degenerative brain diseases including flavonoid derivs.)

RN 19202-36-9 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 16 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:841363 HCAPLUS

DOCUMENT NUMBER: 144:11250

TITLE: Study on flavonoids in Selaginella tamariscina (Beanuv.) Spring

AUTHOR(S): Zheng, Xiaoke; Shi, Shepo; Bi, Yuefeng; Feng, Weisheng

CORPORATE SOURCE: Henan College of Traditional Chinese Medicine, Zhengzhou, Henan Province, 450008, Peop. Rep. China

SOURCE: Zhongcaoyao (2004), 35(7), 742-743
CODEN: CTYAD8; ISSN: 0253-2670

PUBLISHER: Zhongcaoyao Zazhi Bianjibu

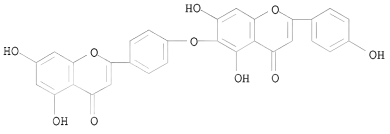
DOCUMENT TYPE: Journal

LANGUAGE: Chinese

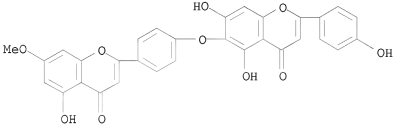
AB Compds. were isolated by various chromatogs. with silica gel. Their structures were elucidated by spectral anal. and chemical evidence. Five compds. were obtained and identified as: neocryptomerin (I), genkwanin (II), apigenin-6,8-di-C-β-glucopyranoside (III), amentoflavone (IV), hinokiflavone (V). Compds. I-III are obtained from this plant for the first time.

IT 19202-36-9, Hinokiflavone 20931-36-6, Neocryptomerin
RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU

(Occurrence); USES (Uses)
(study on flavonoids in Selaginella tamariscina (Beauv.) Spring)
RN 19202-36-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



RN 20931-36-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-6-[4-(5-hydroxy-7-methoxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-2-(4-hydroxyphenyl)- (CA INDEX NAME)

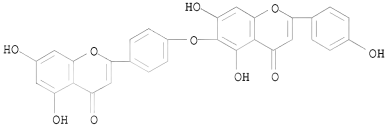


L31 ANSWER 17 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:589380 HCAPLUS
DOCUMENT NUMBER: 143:146461
TITLE: Neuroprotective effects of naturally occurring biflavonoids
AUTHOR(S): Kang, Sam Sik; Lee, Ji Yeon; Choi, Yoo Keum; Song, Sun Sook; Kim, Ju Sun; Jeon, Su Jin; Han, Yong Nam; Son, Kun Ho; Han, Byung Hee
CORPORATE SOURCE: Department of Manufacturing Pharmacy, Seoul National University College of Pharmacy, Seoul, 110-460, S. Korea
SOURCE: Bioorganic & Medicinal Chemistry Letters (2005), 15(15), 3588-3591
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We examined neuroprotective effects of naturally occurring biflavonoids on oxidative stress-induced and amyloid β peptide-induced cell death in neuronal cells. Among the nine biflavonoids tested, amentoflavone, ginkgetin, and isoginkgetin exhibited strong neuroprotection against

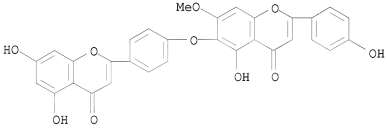
cytotoxic insults induced by oxidative stress and amyloid β, suggesting their therapeutic potential against neurodegenerative diseases, including ischemic stroke and Alzheimer's disease.

IT 19202-36-9, Hinokiflavone 20931-58-2, Isocryptomerin
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(neuroprotective effects of naturally occurring biflavonoids)

RN 19202-36-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



RN 20931-58-2 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5-hydroxy-2-(4-hydroxyphenyl)-7-methoxy- (CA INDEX NAME)



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

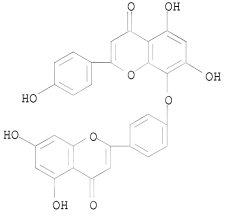
L31 ANSWER 18 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:1027997 HCAPLUS
DOCUMENT NUMBER: 142:273383
TITLE: A bioactive biflavonoid from Campnosperma panamense
AUTHOR(S): Weniger, B.; Vonthron-Senecheau, C.; Arango, G. J.; Kaiser, M.; Brun, R.; Anton, R.
CORPORATE SOURCE: Laboratoire de Pharmacognosie, Universite Louis Pasteur, Strasbourg, 67401, Fr.
SOURCE: Fitoterapia (2004), 75(7-8), 764-767
CODEN: FTRPAE; ISSN: 0367-326X
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Lanaroflavone, a biflavonoid isolated from the methanol extract of the aerial

part of Campnosperma panamensis by bioguided fractionation, has been assessed for in vitro antiprotozoal activity. Lanaroflavone showed both antimalarial and leishmanicidal activities, but was inactive against the Chagas disease vector, Trypanosoma cruzi.

IT 521-50-6P, Lanaroflavone
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(lanaroflavone exhibited bioactivity against Plasmodium falciparum K1 chloroquine-resistant strain and moderate activity against Leishmania donovani amastigote but no activity against Trypanosoma cruzi trypomastigotes)

RN 521-50-6 HCAPLUS

CN 4H-1-Benzopyran-4-one, 8-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 19 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:565187 HCAPLUS
DOCUMENT NUMBER: 141:123486
TITLE: Preparation of naphthalene derivatives as selective estrogen receptor modulators
INVENTOR(S): Hamaoka, Shinichi; Kitazawa, Noritaka; Nara, Kazumasa; Sasaki, Atsushi; Kamada, Atsushi; Okabe, Tadashi
PATENT ASSIGNEE(S): Eisai Co., Ltd., Japan
SOURCE: PCT Int. Appl., 982 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

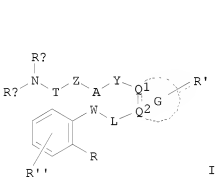
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004058682	A1	20040715	WO 2003-JP16808	20031225

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

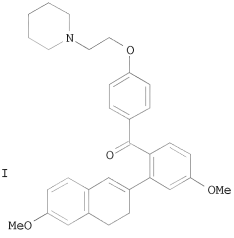
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,
NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2512000	A1	20040715	CA 2003-2512000		20031225
AU 2003292625	A1	20040722	AU 2003-292625		20031225
AU 2003292625	B2	20080724			
EP 1577288	A1	20050921	EP 2003-782904		20031225
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
US 20060116364	A1	20060601	US 2005-158245		20050622
PRIORITY APPLN. INFO.:			JP 2002-378729	A	20021226
			WO 2003-JP16808	W	20031225

OTHER SOURCE(S): MARPAT 141:123486
GI



I



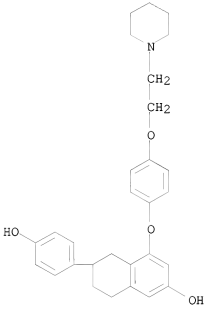
II

AB The title compds. I [wherein T = a single bond, (un)substituted alkylene, alkenylene, or alkynylene; A = a single bond, (un)substituted heterocycle, (hetero)arylene, or cyclohydrocarbyl; Y = a single bond, O, S, etc.; Z = CH2O, O, S, etc.; ring G = (hetero)arylene, heterocycle, etc.; Q1 and Q2 = independently N or C; Ra and Rb = independently H, (un)substituted alkyl, alkenyl, alkynyl, etc.; W = a single bond, CO, (un)substituted alkylene, NH, etc.; R' = H, O, S, etc.; R'' = H, OH, halo, etc.; R = H, OH, halo, etc.; L = a single bond, (un)substituted alkylene, alkenylene, or alkynylene] or salts, or hydrates thereof are prepared as selective estrogen receptor modulators. For example, the compound II was prepared in a multi-step synthesis. I showed affinity towards estrogen receptor with Ki of 0.2 to 94 nM in cow.

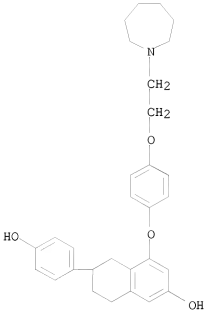
IT 679410-89-0P 722534-26-1P 722534-27-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of naphthalene derivs. as selective estrogen receptor modulators)

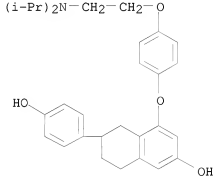
RN 679410-89-0 HCAPLUS
CN 2-Naphthalenol, 5,6,7,8-tetrahydro-6-(4-hydroxyphenyl)-4-[4-[2-(1-piperidinyl)ethoxy]phenoxy]- (CA INDEX NAME)



RN 722534-26-1 HCAPLUS
CN 2-Naphthalenol, 4-[4-[2-(hexahydro-1H-azepin-1-yl)ethoxy]phenoxy]-5,6,7,8-tetrahydro-6-(4-hydroxyphenyl)- (CA INDEX NAME)



RN 722534-27-2 HCAPLUS
CN 2-Naphthalenol, 4-[4-[2-[bis(1-methylethyl)amino]ethoxy]phenoxy]-5,6,7,8-tetrahydro-6-(4-hydroxyphenyl)- (CA INDEX NAME)



L31 ANSWER 20 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:392089 HCAPLUS
DOCUMENT NUMBER: 140:405940
TITLE: Prevention of synthetic color fading in beverages using botanically derived color stabilizers such as phenylpropenoic carbonyl compounds.
INVENTOR(S): Roy, Glenn; Berardi, Robin; Chan, Wendy; Lee, Thomas
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 14 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent

Updated Search

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

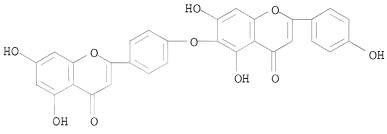
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20040091589	A1	20040513	US 2003-629759	20030730
PRIORITY APPLN. INFO.:			US 2002-399689P P	20020730

AB Fading of synthetically colored beverages is prevented using botanically derived color stabilizers which are C6-C3 phenylpropenoic carbonyl compds. which contain both unsatn. and oxidation at a carbon atom.

IT 19202-36-9, Hinokiflavone
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(prevention of synthetic color fading in beverages using botanically derived color stabilizers such as phenylpropenoic carbonyl compds.)

RN 19202-36-9 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



L31 ANSWER 21 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:344802 HCAPLUS
DOCUMENT NUMBER: 141:33331
TITLE: A semi-empirical study of biflavonoid compounds with biological activity against tuberculosis
AUTHOR(S): Dias, J. C.; Rebelo, M. M.; Alves, C. N.
CORPORATE SOURCE: Centro de Ciencias Exatas e Naturais, Departamento de Quimica, Universidade Federal do Para, Belem, PA, 66075-110, Brazil
SOURCE: THEOCHEM (2004), 676(1-3), 83-87
CODEN: THEODJ; ISSN: 0166-1280
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

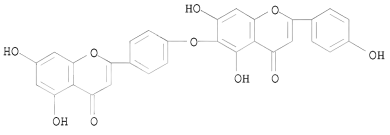
AB Biflavonoids are a series of naturally occurring with a variety of biol. activities. In this work the PM3 semi-empirical method was employed to calculate a set of mol. properties (variables or descriptors) of 28 biflavonoid compds. with inhibitory activity against Mycobacterium tuberculosis H37Rv (Mtb). We have observed a correlation between the heat of formation (Hf), log of the octanol/water partition coefficient (log P) or hydration energy (HE) and the antituberculosis activity. The active compds. present larger values for log P, Hf, and HE. These results suggest that it is possible, in principle, to select the most (or the least) promising mols. from a series of untested biflavonoid mols., simply

by comparing their Hf, log P, or HE.

IT 19202-36-9
RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(semi-empirical study of biflavonoids with activity against tuberculosis)

RN 19202-36-9 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 22 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:344775 HCAPLUS

DOCUMENT NUMBER: 141:33330

TITLE: A study on the anti-HIV activity of biflavonoid compounds by using quantum chemical and chemometric methods

AUTHOR(S): Molfetta, F. A.; Honorio, K. M.; Alves, C. N.; da Silva, A. B. F.

CORPORATE SOURCE: Instituto de Quimica de Sao Carlos, Departamento de Quimica e Fisica Molecular, Universidade de Sao Paulo, Sao Carlos, 13560-970, Brazil

SOURCE: THEOCHEM (2004), 674(1-3), 191-197
CODEN: THEODJ; ISSN: 0166-1280

PUBLISHER: Elsevier Science B.V.

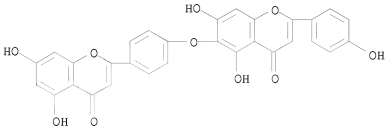
DOCUMENT TYPE: Journal

LANGUAGE: English

AB A set of 14 biflavonoid compds. with anti-human immunodeficiency virus (anti-HIV) activity is studied by using quantum chemical and chemometric methodologies with the aim to calculate some mol. properties and correlate them with the biol. activity. The AM1 semi-empirical method was used to calculate the mol. properties of the 14 biflavonoid compds. and the chemometric methods stepwise discriminant anal. (SDA), K-nearest neighbors (KNN) and soft independent modeling of class analogy (SIMCA) were used to obtain the relation between the calculated properties and the biol. activity under study. Afterwards we used the results obtained with SDA, KNN and SIMCA to predict the anti-HIV activity of a new set of biflavonoid mols.

IT 19202-36-9
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-HIV activity of biflavonoid compds. by using quantum chemical and chemometric methods)

RN 19202-36-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 23 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:33982 HCAPLUS
DOCUMENT NUMBER: 140:105231
TITLE: Biflavonoids, flavonoids, chalcones and chalcone-like compounds and use against mycobacterium infections
INVENTOR(S): Lin, Yuh-meei
PATENT ASSIGNEE(S): Advanced Life Sciences, Inc., USA
SOURCE: U.S., 19 pp., Cont.-in-part of U.S. Provisional Ser. No. 155,519.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

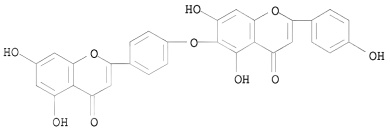
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6677350	B1	20040113	US 2000-667131	20000921
WO 2001021164	A2	20010329	WO 2000-US26196	20000922
WO 2001021164	A3	20020110		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1217995	A2	20020703	EP 2000-963753	20000922
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
US 20040147597	A1	20040729	US 2004-756582	20040112
PRIORITY APPLN. INFO.:			US 1999-155519P	P 19990922
			US 2000-667131	A2 20000921
			WO 2000-US26196	W 20000922
OTHER SOURCE(S):	MARPAT 140:105231			

AB The present invention relates to compds., compns. and methods for the prevention or treatment of mycobacterium infections. The compds. are naturally occurring and synthetic biflavonoids, flavonoids, chalcones and chalcone like compds. The anti-mycobacterium compds. have the structure: R1C(O)CH=CHR2 (R1 = 4-fluorophenyl-, 3-hydroxyphenyl-, pyridin-3-yl-, etc.; R2 = pyridin-3-yl-, phenanthren-9-yl-, phenanthren-9-yl-, phenyl-, 2-aminopyridino-3-yl, 2-aminopyridino-3-yl-, etc.). The compds. were screened for anti-mycobacterium activity. Of the compds. showing anti-mycobacterium activity, eight were identified as particularly potent, exhibiting greater than 90% inhibition of the growth of Mycobacterium tuberculosis (Mtb) at a concentration of 12.5 μg/mL. The actual min. inhibitory concns. (MIC), defined as the lowest concentration inhibiting 99% of the inoculum, for the preferred compds. ranged from 6.8 to 48.3 μM.

IT 19202-36-9
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-tuberculosis activity of; biflavonoids, flavonoids, chalcones and chalcone-like compds. and use against mycobacterium infections)

RN 19202-36-9 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 134 THERE ARE 134 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 24 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:	2002:425422 HCAPLUS
DOCUMENT NUMBER:	137:692
TITLE:	Biflavanoids and derivatives thereof as antiviral agents
INVENTOR(S):	Lin, Yuh-Meei; Zembower, David E.; Flavin, Michael T.; Schure, Ralph; Zhao, Geng-Xian
PATENT ASSIGNEE(S):	Advanced Life Sciences, Inc., USA
SOURCE:	U.S., 37 pp., Cont.-in-part of U. S. Ser. No. 842,625, abandoned. CODEN: USXXAM
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	4
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

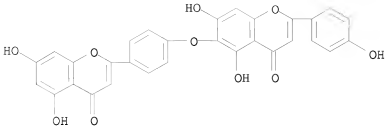
US 6399654	B1	20020604	US 1998-60839		19980415
US 5773462	A	19980630	US 1996-668284		19960621
EP 1245230	A2	20021002	EP 2002-10287		19960621
EP 1245230	A3	20031126			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
WO 9846238	A1	19981022	WO 1998-US7649		19980415
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
AU 9871243	A	19981111	AU 1998-71243		19980415
US 20020068757	A1	20020606	US 2001-761909		20010117
PRIORITY APPLN. INFO.:			US 1995-465P	P	19950623
			US 1996-668284	A2	19960621
			US 1997-842625	B2	19970415
			EP 1996-921740	A3	19960621
			US 1998-60839	A	19980415
			WO 1998-US7649	W	19980415

AB Substantially purified antiviral biflavanoids robustaflavone, hinokiflavone, amentoflavone, agathisflavone, volkensiflavone, morelloflavone, rhusflavanone, succedaneaflavanone, GB-1a, and GB-2a are provided. Antiviral biflavanoid derivs. and salt forms thereof, e.g., robustaflavone tetrasulfate potassium salt, and methods for preparing them, are also disclosed. Pharmaceutical compns. which include the antiviral biflavanoids, derivs. or salts thereof, are also provided alone or in combination with at least one antiviral agent, e.g. 3TC. Also disclosed is an improved method for obtaining substantially pure robustaflavone from plant material. The biflavanoid compds., derivs. or salts thereof of the invention may be used in a method for treating and/or preventing viral infections caused by viral agents, e.g. influenza (e.g. influenza A and B), hepatitis (e.g. hepatitis B), human immunodeficiency virus (e.g. HIV-1), Herpes viruses (HSV-1 and HSV-2), Varicella Zoster virus (VZV), and measles. For instance, semi-synthetic hexa-O-acetate and hexa-O-Me ether derivs. of robustaflavone have been found to be effective in a method for treating or preventing hepatitis B viral infections. Compns. which include these robustaflavone derivs. along with methods for preparing and using the same are also provided. These compns. may be used alone or in combination with at least one antiviral agent such as 3TC.

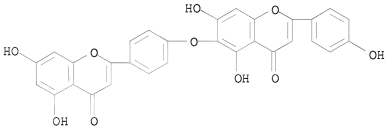
IT 19202-36-9P, Hinokiflavone
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(biflavanoids and derivs. as antiviral agents)

RN 19202-36-9 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



IT 19202-36-9D, Hinokiflavone, derivs.
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biflavanoids and derivs. as antiviral agents)
RN 19202-36-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 99 THERE ARE 99 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 25 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:418315 HCAPLUS
DOCUMENT NUMBER: 135:205164
TITLE: Effects of constituents from the bark of Magnolia obovata on nitric oxide production in lipopolysaccharide-activated macrophages
AUTHOR(S): Matsuda, Hisashi; Kageura, Tadashi; Oda, Mamiko; Morikawa, Toshio; Sakamoto, Yasuko; Yoshikawa, Masayuki
CORPORATE SOURCE: Kyoto Pharmaceutical University, Kyoto, 607-8412, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (2001), 49(6), 716-720
CODEN: CPBTAL; ISSN: 0009-2363
PUBLISHER: Pharmaceutical Society of Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The methanolic extract from a Japanese herbal medicine, the bark of Magnolia obovata, was found to inhibit nitric oxide (NO) production in lipopolysaccharide (LPS)-activated macrophages. By bioassay-guided separation, three neolignans (magnolol, honokiol, obovatol) and three sesquiterpenes (α-eudesmol, β-eudesmol, γ-eudesmol) were obtained as

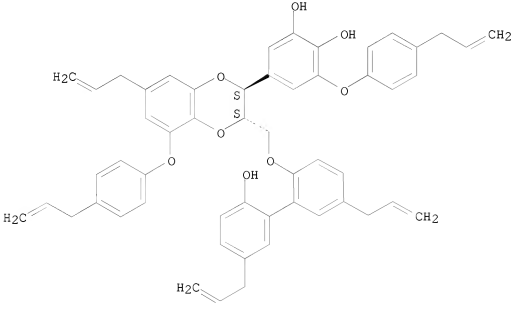
active constituents. A trineolignan (magnolianin), a phenylpropanoid glycoside (syringin), lignan glycosides (liriodendrin, (+)-syringaresinol 4'-O-β-D-glucopyranoside) and a sesquiterpene (caryophyllene oxide) did not show any activity. On the other hand, sesquiterpene-neolignans (eudesmagnolol, clovanemagnolol, caryolanemagnolol, eudeshonokiol A, eudesobovatol A) showed the strong cytotoxic effects. Active constituents (magnolol, honokiol, obovatol) showed weak inhibition for inducible NO synthase (iNOS) enzyme activity, but potent inhibition of iNOS induction and activation of nuclear factor-κB.

IT 147663-91-0P, Magnolianin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(effects of constituents from bark of Magnolia obovata on nitric oxide production in lipopolysaccharide-activated macrophages)

RN 147663-91-0 HCAPLUS

CN 1,2-Benzenediol, 5-[(2R,3R)-2,3-dihydro-3-[[(2'-hydroxy-5,5'-di-2-propen-1-yl[1,1'-biphenyl]-2-yl)oxy]methyl]-7-(2-propen-1-yl)-5-[4-(2-propen-1-yl)phenoxy]-1,4-benzodioxin-2-yl]-3-[4-(2-propen-1-yl)phenoxy]-, rel- (CA INDEX NAME)

Relative stereochemistry.
Currently available stereo shown.



REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 26 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:228698 HCAPLUS
DOCUMENT NUMBER: 134:261227
TITLE: Anti-mycobacterium flavonoid and chalcone compound

compositions and methods of preparing and using them
INVENTOR(S): Lin, Yuh-Meej
PATENT ASSIGNEE(S): Advanced Life Sciences, Inc., USA
SOURCE: PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001021164	A2	20010329	WO 2000-US26196	20000922
WO 2001021164	A3	20020110		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6677350	B1	20040113	US 2000-667131	20000921
EP 1217995	A2	20020703	EP 2000-963753	20000922
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				

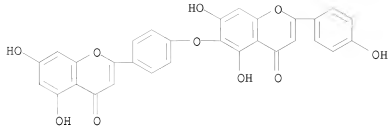
PRIORITY APPLN. INFO.:
US 1999-155519P P 19990922
US 2000-667131 A2 20000921
WO 2000-US26196 W 20000922

OTHER SOURCE(S): MARPAT 134:261227

AB The invention provides compds., compns. and methods for the prevention or treatment of mycobacterium infections. The compds. are naturally occurring and synthetic biflavonoids, flavonoids, chalcones and chalcone-like compds. The compds. were screened for anti-mycobacterial activity. Of the compds. showing anti-mycobacterial activity, eight were identified as particularly potent, exhibiting greater than 90% inhibition of the growth of Mycobacterium tuberculosis at a concentration of 12.5 μg/mL. The actual min. inhibitory concns., defined as the lowest concentration inhibiting 99% of the inoculum, for the preferred compds. ranged from 6.8 to 48.3 μM.

IT 19202-36-9, Hinokiflavone
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(flavonoid and chalcone compound anti-mycobacterium compns., preparation and use)

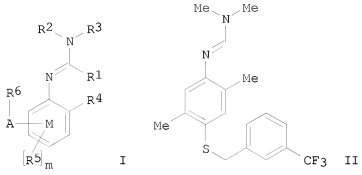
RN 19202-36-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



L31 ANSWER 27 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:553541 HCAPLUS
DOCUMENT NUMBER: 133:163952
TITLE: Preparation of N2-phenylamidines as fungicides
INVENTOR(S): Charles, Mark David; Franke, Wilfried; Green, David Eric; Hough, Thomas Lawley; Mitchell, Dale Robert; Simpson, Donald James; Atherall, John Frederick
PATENT ASSIGNEE(S): Hoechst Schering Agrevo G.m.b.H., Germany
SOURCE: PCT Int. Appl., 76 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000046184	A1	20000810	WO 2000-GB345	20000204
W: AU, BR, CA, CN, CZ, HU, IL, IN, JP, KR, MX, RU, TR, UA, US, ZA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2360943	A1	20000810	CA 2000-2360943	20000204
CA 2360943	C	20060418		
EP 1150944	A1	20011107	EP 2000-901791	20000204
EP 1150944	B1	20030820		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
TR 200102237	T2	20011221	TR 2001-2237	20000204
BR 2000009314	A	20020213	BR 2000-9314	20000204
HU 2001005098	A2	20020429	HU 2001-5098	20000204
HU 2001005098	A3	20020528		
JP 2002536354	T	20021029	JP 2000-597256	20000204
AT 247629	T	20030915	AT 2000-901791	20000204
AU 768156	B2	20031204	AU 2000-23088	20000204
PT 1150944	T	20031231	PT 2000-901791	20000204
ES 2200816	T3	20040316	ES 2000-901791	20000204
RU 2234504	C2	20040820	RU 2001-124664	20000204
US 6893650	B1	20050517	US 2001-890775	20000204
ZA 2001005845	A	20021016	ZA 2001-5845	20010716
MX 2001PA07923	A	20021011	MX 2001-PA7923	20010803
IN 2001DN00764	A	20070112	IN 2001-DN764	20010827
HK 1043358	A1	20050506	HK 2002-105179	20020712
PRIORITY APPLN. INFO.:			GB 1999-2592 A	19990206
			WO 2000-GB345 W	20000204

OTHER SOURCE(S): MARPAT 133:163952
GI

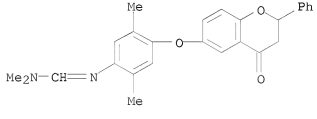


AB The title compds. [I; R1 = alkyl, alkenyl, alkynyl, etc.; R2, R3 = R1, CN, acyl, etc.; R2 and R3, or R2 and R1, together with their interconnecting atoms may form (un)substituted ring; R4 = alkyl, alkenyl, alkynyl, etc.; m = 0-3; when present R5 = R4; R6 = (un)substituted carbo- or heterocyclyl; A = a direct bond, O, C.tplbond.C, etc.; AR6 and R5 together with benzene ring M form an (un)substituted fused ring system], useful as fungicides, were prepared E.g., a 3-step preparation of the formamidine II which showed moderate to total control against Erysiphe graminis f. sp. Tritici at 500 ppm (w/v) or less, was given.

IT 287940-12-9P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of N2-phenylamidines as fungicides)

RN 287940-12-9 HCAPLUS

CN Methanimidamide, N'-[4-[(3,4-dihydro-4-oxo-2-phenyl-2H-1-benzopyran-6-yl)oxy]-2,5-dimethylphenyl]-N,N-dimethyl- (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

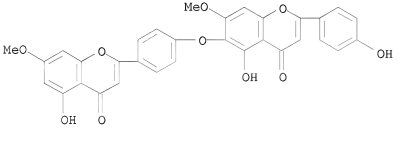
L31 ANSWER 28 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:445135 HCAPLUS
DOCUMENT NUMBER: 133:329268
TITLE: Compounds from Biota orientalis leaves inhibit

	expression of adhesion molecules induced by TNF-α on inflammatory cells
AUTHOR(S):	Lee, Hyeong-Kyu; Ahn, Kyung-Seop; Park, Si Hyung; Lee, Im Seon; Kim, Jung Hee
CORPORATE SOURCE:	Immunomodulator Research Laboratory, Korea Research Institute of Bioscience and Biotechnology, Taejon, 305-600, S. Korea
SOURCE:	Recent Advances in Natural Products Research, Proceedings of the International Symposium on Recent Advances in Natural Products Research, 3rd, Seoul, Republic of Korea, Nov. 19, 1999 (1999), 54-62. Editor(s): Shin, Kuk Hyun; Kang, Sam Sik; Kin, Yeong Shik. Seoul National University, Natural Products Research Institute: Seoul, S. Korea. CODEN: 69ACLK
DOCUMENT TYPE:	Conference
LANGUAGE:	English

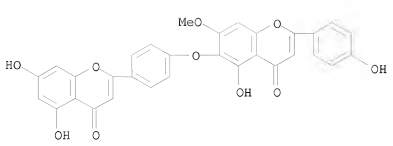
AB A study was conducted to isolate active compds. from the leaves of Biota orientalis using the bioactivity-guided separation method. Thirteen compds. (6 flavonoids, 6 diterpenoids and a coumarin) were isolated from the leaves of Biota orientalis. Putraflavone, acacetin and 6-methoxy-λ-8(17),13-dien-15,19-dioic acid butenolide showed good activity in the inhibition assay of intercellular cell adhesion mol. 1 (ICAM-1) and vascular cell adhesion mol. 1 (VCAM-1) expression induced by tumor necrosis factor-α on THP-1 cells. In the inhibition assay of cell-cell adhesion, acacetin showed the strongest activity among isolated compds., and demethylpinusolide and putraflavone followed. These results suggest that biota leaves are useful for the treatment of acute and chronic inflammation including chronic bronchitis.

IT 20931-35-5 20931-58-2, Isocryptomerin
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(compds. from Biota orientalis leaves inhibit expression of adhesion mols. induced by TNF-α on inflammatory cells in relation to inhibition of cell-cell adhesion and inflammation inhibition)

RN 20931-35-5 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5-hydroxy-6-[4-(5-hydroxy-7-methoxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-2-(4-hydroxyphenyl)-7-methoxy- (CA INDEX NAME)



RN 20931-58-2 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5-hydroxy-2-(4-hydroxyphenyl)-7-methoxy- (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 29 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:706097 HCAPLUS
DOCUMENT NUMBER: 129:310877
ORIGINAL REFERENCE NO.: 129:63297a,63300a
TITLE: Biflavanoids and their derivatives as antiviral agents, alone or in combination with at least one known antiviral agent
INVENTOR(S): Zembower, David E.; Lin, Yuh-Meei; Flavin, Michael T.; Schure, Ralph; Zhao, Geng-Xian
PATENT ASSIGNEE(S): Medichem Research, Inc., USA
SOURCE: PCT Int. Appl., 102 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

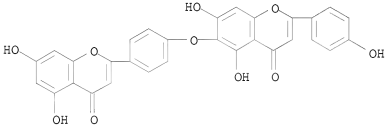
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9846238	A1	19981022	WO 1998-US7649	19980415
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9871243	A	19981111	AU 1998-71243	19980415
US 6399654	B1	20020604	US 1998-60839	19980415
PRIORITY APPLN. INFO.:			US 1997-842625	A2 19970415
			US 1998-60839	A 19980415
			US 1995-465P	P 19950623
			US 1996-668284	A2 19960621
			WO 1998-US7649	W 19980415

AB Substantially purified antiviral biflavanoids robustaflavone, hinokflavone, amentoflavone, agathisflavone, volkensiflavone, morelloflavone, rhusflavanone, succedaneaflavanone, GB-1a, and GB-2a are provided. Antiviral biflavanoid derivs. and salt forms thereof, e.g., robustaflavone tetrasulfate potassium salt, and methods for preparing the same are also disclosed. Pharmaceutical compns. which include the

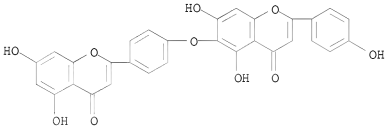
antiviral biflavanoids, derivs. of salts thereof are also provided alone or in combination with at least one antiviral agent such as 3TC. Also disclosed is an improved method for obtaining substantially pure robustaflavone from plant material. The biflavanoid compds., derivs. or salts thereof of the invention may be used in a method for treating and/or preventing viral infections caused by viral agents such as influenza, e.g., influenza A and B; hepatitis, e.g., hepatitis B; human immunodeficiency virus, e.g., HIV-1; Herpes viruses (HSV-1 and HSV-2); Varicella Zoster virus (VZV); and measles. For instance, semi-synthetic hexa-O-acetate and hexa-O-Me ether derivs. of robustaflavone have been found to be effective in a method for treating or preventing hepatitis B viral infections. Compns. which include these robustaflavone derivs. along with methods for preparing and using the same are also provided. These compns. may be used alone or in combination with at least one antiviral agent such as 3TC.

IT 19202-36-9, Hinokiflavone 19202-36-9D, Hinokiflavone, derivs.
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biflavanoids and derivs., alone or in combination with other antiviral agents, for viral infection prevention or treatment, and biflavanoid isolation and preparation)

RN 19202-36-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



RN 19202-36-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

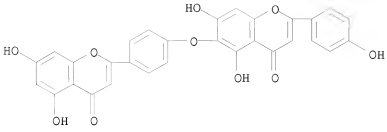
L31 ANSWER 30 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:430070 HCAPLUS
DOCUMENT NUMBER: 129:95353
ORIGINAL REFERENCE NO.: 129:19670h,19671a
TITLE: Isolation of biflavonoids and preparation of derivatives thereof as antiviral agents
INVENTOR(S): Lin, Yuh-meei; Flavin, Michael T.; Schure, Ralph; Zembower, David E.; Zhao, Gen-xian
PATENT ASSIGNEE(S): Medichem Research, Inc., USA
SOURCE: U.S., 33 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 5773462	A	19980630	US 1996-668284		19960621
US 5948918	A	19990907	US 1998-59913		19980414
US 6399654	B1	20020604	US 1998-60839		19980415
US 20020068757	A1	20020606	US 2001-761909		20010117
PRIORITY APPLN. INFO.:			US 1995-465P	P	19950623
			US 1996-668284	A3	19960621
			WO 1996-US10718	W	19960621
			US 1997-842625	B2	19970415
			US 1998-60839	A3	19980415

AB A method for treating an influenza infection in a mammal comprises administering to said mammal an effective therapeutic amount of a substantially purified antiviral biflavonoid, selected from robustaflavone, amentoflavone, or a derivative or salt thereof. Thus, robustaflavone tetrasulfate potassium salt was prepared from robustaflavone (isolated from Rhus succedanea) via reaction with tetrabutylammonium hydrogen sulfate in pyridine containing dicyclohexyl carbodiimide followed treatment with K2CO3 in MeOH. Robustaflavone tetrasulfate potassium salt was effective against hepatitis B virus (EC50 = 0.4 μM) and showed 95.5% inhibition of HIV-1 RT at 200 μg/mL (IC50 = 144.4 μmL).

IT 19202-36-9, Hinokiflavone
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(isolation of biflavonoids and preparation of derivs. thereof as antiviral agents)

RN 19202-36-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 84 THERE ARE 84 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 31 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:172486 HCAPLUS
DOCUMENT NUMBER: 126:166466
ORIGINAL REFERENCE NO.: 126:32053a,32056a
TITLE: Biflavonoids and derivatives thereof as antiviral agents, isolation thereof, and derivative preparation
INVENTOR(S): Lin, Yuh-Meei; Flavin, Michael T.; Schure, Ralph; Zembower, David E.; Zhao, Geng-Xian
PATENT ASSIGNEE(S): Medichem Research, Inc., USA
SOURCE: PCT Int. Appl., 93 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9700679	A1	19970109	WO 1996-US10718	19960621
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
CA 2225341	A1	19970109	CA 1996-2225341	19960621
AU 9662880	A	19970122	AU 1996-62880	19960621
AU 707798	B2	19990722		
EP 833631	A1	19980408	EP 1996-921740	19960621
EP 833631	B1	20021113		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11508264	T	19990721	JP 1996-503972	19960621
EP 1245230	A2	20021002	EP 2002-10287	19960621
EP 1245230	A3	20031126		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AT 227569	T	20021115	AT 1996-921740	19960621
US 5948918	A	19990907	US 1998-59913	19980414
PRIORITY APPLN. INFO.:			US 1995-465P P	19950623
			EP 1996-921740 A3	19960621
			US 1996-668284 A3	19960621

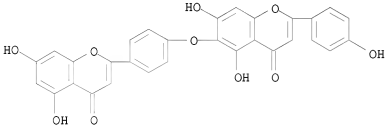
WO 1996-US10718 W 19960621

AB Substantially purified antiviral biflavanoids robustaflavone, hinokiflavone, amentoflavone, agathisflavone, volkensiflavone, morelloflavone, rhusflavanone, succedaneaflavanone, GB-1a, and GB-2a are provided. Antiviral biflavanoid derivs. and salt forms thereof, e.g., robustaflavone tetrasulfate potassium salt, and methods for preparing the same are also disclosed. Pharmaceutical compns. which include the antiviral biflavanoids, derivs. or salts thereof are also provided. Also disclosed is an improved method for obtaining substantially pure robustaflavone from plant material. The biflavanoid compds., derivs. or salts thereof of the invention may be used in a method for treating and/or preventing viral infections caused by viral agents such as influenza, e.g., influenza A and B; hepatitis, e.g., hepatitis B; human immunodeficiency virus, e.g., HIV-1; Herpes viruses (HSV-1 and HSV-2); Varicella Zoster virus (VZV); and measles.

IT 19202-36-9P, Hinokiflavone
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(biflavanoids and derivs. thereof as antiviral agents, isolation thereof, and derivative preparation)

RN 19202-36-9 HCAPLUS

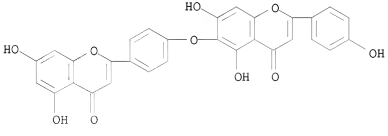
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



IT 19202-36-9D, Hinokiflavone, derivs.
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biflavanoids and derivs. thereof as antiviral agents, isolation thereof, and derivative preparation)

RN 19202-36-9 HCAPLUS

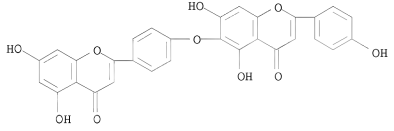
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



L31 ANSWER 32 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:139734 HCAPLUS
DOCUMENT NUMBER: 126:161990
ORIGINAL REFERENCE NO.: 126:31241a,31244a
TITLE: One-package-type hair dye compositions containing polyvalent metal salts and ascorbic acid
INVENTOR(S): Yoshimoto, Megumi; Yanaba, Shigeru
PATENT ASSIGNEE(S): Lion Corp, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08337516	A	19961224	JP 1995-169366	19950613

PRIORITY APPLN. INFO.: JP 1995-169366 19950613
AB Title compns. contain polyvalent metal salts, ascorbic acid (I), and ligands. The compns. are used for dyeing of gray hair easily and do not damage the hair. A composition containing FeSO4 1.0, I 0.5, Gly 3.0, emodin 1,0, polyoxyethylene stearyl ether 0.4, coco fatty acid diethanolamide 0.3, Me p-hydroxybenzoate 0.1, EtOH 20, and H2O to 100 weight% was mixed with 7 weight% (of the composition) LPG to give a hair dye spray, which showed good hair-dyeing effect and storage stability, and no metal odor.
IT 19202-36-9, Hinokiflavone
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(one-package-type hair dyes containing polyvalent metal salts, ascorbic acid, and ligands)
RN 19202-36-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



L31 ANSWER 33 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:113419 HCAPLUS
DOCUMENT NUMBER: 126:122303
ORIGINAL REFERENCE NO.: 126:23547a,23550a
TITLE: Hair growth promoting compositions containing isoflavanoid derivatives

INVENTOR(S): Kung, Patrick C.; Li, Ze Zeng
PATENT ASSIGNEE(S): Kung, Patrick, C., USA
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9639832	A1	19961219	WO 1996-US8433	19960603
W: AL, AM, AU, AZ, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IL, IS, JP, KG, KP, KR, KZ, LK, LR, LS, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, UZ, VN, AM, AZ, BY				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5639785	A	19970617	US 1995-484097	19950607
AU 9659704	A	19961230	AU 1996-59704	19960603
PRIORITY APPLN. INFO.:			US 1995-484097 A	19950607
			US 1996-659466 A	19960531
			WO 1996-US8433 W	19960603

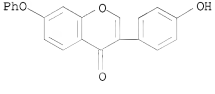
OTHER SOURCE(S): MARPAT 126:122303

AB Novel compns. of isoflavanoid derivs. useful for the treatment of male pattern baldness and alopecia areata, promoting the conversion of gray hair to the original pigment in hair follicles, and increasing the blood supply to the brain are disclosed. The invention also relates to methods for treatment of male pattern baldness and alopecia areata, gray hair, and brain circulatory deficiencies. Sodium methoxide 6.48 was added to 50 mL DMF and the mixture was distilled to eliminate alc. then, resulting product was cooled to ≤20°. Dimethylamino-methoxy sulfuric acid Me ester (preparation given) was added dropwise to the cooled product and the mixture was allowed to react for 5 h. The reaction mixture was distilled to remove dimethyllformaide from the mixture followed by addition of water to obtain daidzein (I). A tablet contained I 100, lactose 50, starch 23, microcryst. cellulose 2, dicalcium phosphate 30 mg, surfactants trace, and magnesium trace. The efficacy of tablets (2 tablet 3 times/day) in treatment of hypertensive male bald subject is reported.

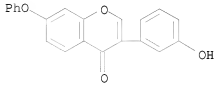
IT 186246-61-7P 186246-66-2P
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hair growth promoting compns. containing isoflavanoid derivs.)

RN 186246-61-7 HCAPLUS

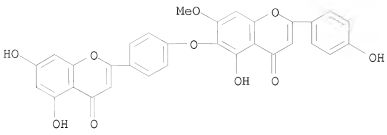
CN 4H-1-Benzopyran-4-one, 3-(4-hydroxyphenyl)-7-phenoxy- (CA INDEX NAME)



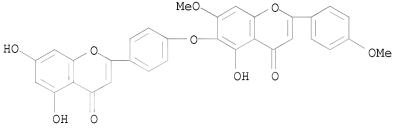
RN 186246-66-2 HCAPLUS
CN 4H-1-Benzopyran-4-one, 3-(3-hydroxyphenyl)-7-phenoxy- (CA INDEX NAME)



L31 ANSWER 34 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:618491 HCAPLUS
DOCUMENT NUMBER: 125:292577
ORIGINAL REFERENCE NO.: 125:54439a,54442a
TITLE: Inhibition of phospholipase Cγ1 activity by amentoflavone isolated from Selaginella tamariscina
AUTHOR(S): Lee, Hyun Sun; Oh, Won Keun; Kim, Bo Yeon; Ahn, Soon Cheol; Kang, Dae Ook; Shin, Dong In; Kim, Jinwoong; Mheen, Tae Ick; Ahn, Jong Seog
CORPORATE SOURCE: Korea Research Institute Bioscience Biotechnology, Taejon, 305600, S. Korea
SOURCE: Planta Medica (1996), 62(4), 293-296
CODEN: PLMEAA; ISSN: 0032-0943
PUBLISHER: Thieme
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Amentoflavone (I) was isolated as an inhibitor of phospholipase Cγ1 (PLCγ1) and phosphoinositides (PI)-turnover in PLCγ1 overexpressing NIH3T3 fibroblasts (NIH3T3γ1) from Selaginella tamariscina together with other related biflavonoids, isocryptomerin (II) and cryptomerin B (III). Only I inhibited the PLCγ1 activity with an IC50 of 29 μM and the formation of total inositol phosphates (IPt) in PDGF-stimulated NIH3T3γ1 with an IC50 of 9.2 μM but did not show inhibitory activity against protein kinase C. II and III did not show any inhibitory activity against PLCγ1 at the concentration of 150 μM, and did not inhibit IPt production in PDGF-induced NIH3T3γ1 at the concentration of 180 μM.
IT 20931-58-2, Isocryptomerin 22012-98-2, Cryptomerin B
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(phospholipase activity inhibition by amentoflavone from Selaginella tamariscina)
RN 20931-58-2 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5-hydroxy-2-(4-hydroxyphenyl)-7-methoxy- (CA INDEX NAME)

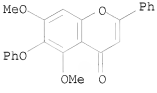


RN 22012-98-2 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5-hydroxy-7-methoxy-2-(4-methoxyphenyl)- (CA INDEX NAME)

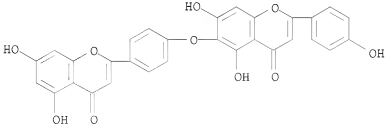


L31 ANSWER 35 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:368278 HCAPLUS
DOCUMENT NUMBER: 125:75345
ORIGINAL REFERENCE NO.: 125:14055a,14058a
TITLE: 6-Bromoflavone, a high affinity ligand for the central benzodiazepine receptors is a member of a family of active flavonoids
AUTHOR(S): Marder, Mariel; Viola, Haydee; Wasowski, Cristina; Wolfman, Claudia; Waterman, Peter G.; Cassels, Bruce K.; Medina, Jorge H.; Paladini, Alejandro C.
CORPORATE SOURCE: Inst. Quimica Fisicoquimica Biologicas, Facultad Farmacia Bioquimica, Buenos Aires, 1113, Argent.
SOURCE: Biochemical and Biophysical Research Communications (1996), 223(2), 384-389
CODEN: BBRCA9; ISSN: 0006-291X
PUBLISHER: Academic
DOCUMENT TYPE: Journal
LANGUAGE: English
AB 6-Bromoflavone, obtained by bromination of flavone, binds to central benzodiazepine receptors with a Ki = 70 nM and has a clear anxiolytic activity in mice, at 0.5 mg/kg, i.p. A survey of the structure/affinity relation for those receptors in a series of natural and synthetic flavonoids is presented.
IT 178693-39-5
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(structure activity relations of a series of natural and synthetic

flavonoids as high affinity ligands for central benzodiazepine receptors)
RN 178693-39-5 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dimethoxy-6-phenoxy-2-phenyl- (CA INDEX NAME)



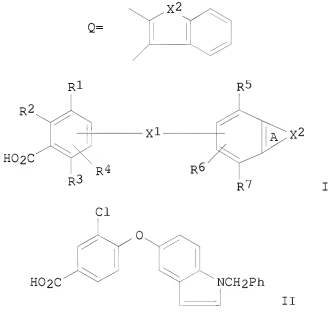
L31 ANSWER 36 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:133088 HCAPLUS
DOCUMENT NUMBER: 124:219862
ORIGINAL REFERENCE NO.: 124:40349a,40352a
TITLE: Ability of Different Flavonoids To Inhibit the Procoagulant Activity of Adherent Human Monocytes
AUTHOR(S): Lale, A.; Herbert, J. M.; Augereau, J. M.; Billon, M.; Leconte, M.; Gleye, J.
CORPORATE SOURCE: Sanofi Recherche, Toulouse, 31036, Fr.
SOURCE: Journal of Natural Products (1996), 59(3), 273-6
CODEN: JNPRDF; ISSN: 0163-3864
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Sixty-five natural flavonoids of various chemical classes were screened for their ability to inhibit the procoagulant activity of adherent human monocytes stimulated by endotoxin and interleukin-1β in vitro. Eighteen of these compds. inhibited the interleukin-1β-induced expression of tissue factor on human monocytes, but the most active compound was a biflavonoid, hinokiflavone.
IT 19202-36-9, Hinokiflavone
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibition of procoagulant activity of adherent human monocytes by flavonoids)
RN 19202-36-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



L31 ANSWER 37 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:909403 HCAPLUS
DOCUMENT NUMBER: 123:313757
ORIGINAL REFERENCE NO.: 123:56239a,56242a
TITLE: Preparation of indolyloxybenzoic acids and analogs as testosterone 5α-reductase inhibitors
INVENTOR(S): Igarashi, Susumu; Isaka, Masahiko; Inami, Hiroshi; Hara, Hiroshi; Kamitoku, Hiroshi
PATENT ASSIGNEE(S): Yamanouchi Pharma Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 70 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

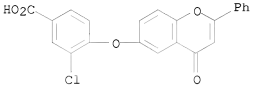
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07145147	A	19950606	JP 1993-296321	19931126
PRIORITY APPLN. INFO.:			JP 1993-296321	19931126

OTHER SOURCE(S): MARPAT 123:313757
GI



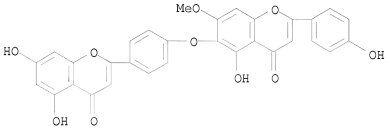
AB The title compds. I [R1 - R7 = H, halo, etc.; X1 = O, S; X2 = O, etc.; ring A = Q, etc.], useful as testosterone 5α-reductase inhibitors (no data), are prepared The title compound II and 83 other title compds. were prepared

IT 161460-10-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of indolyloxybenzoic acids and analogs as testosterone 5α-reductase inhibitors)
RN 161460-10-2 HCAPLUS
CN Benzoic acid, 3-chloro-4-[(4-oxo-2-phenyl-4H-1-benzopyran-6-yl)oxy]- (CA INDEX NAME)

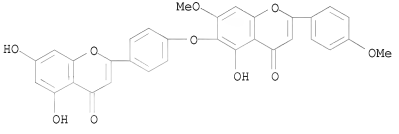


L31 ANSWER 38 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:662286 HCAPLUS
DOCUMENT NUMBER: 123:74451
ORIGINAL REFERENCE NO.: 123:12951a,12954a
TITLE: Suppression of mouse lymphocyte proliferation in vitro by naturally-occurring biflavonoids
AUTHOR(S): Lee, S. J.; Choi, J. H.; Son, K. H.; Chang, H. W.; Kang, S. S.; Kim, P.
CORPORATE SOURCE: Coll. Pharmacy, Kangweon Natl. Univ., Chuncheon, 200-701, S. Korea
SOURCE: Life Sciences (1995), 57(6), 551-8
CODEN: LIFSAK; ISSN: 0024-3205
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In a continuing effort to investigate biol. activities of flavonoids, nine biflavonoids, isolated from three plant sources were evaluated for their suppressive effects on mouse lymphocyte proliferation. The biflavonoids tested were amentoflavone, bilobetin, ginkgetin, isoginkgetin, sciadopitysin, ochnaflavone, 4'-O-methylochnaflavone, cryptomerin B and isocryptomerin. At 10 μM, several biflavonoids such as ginkgetin, isoginkgetin, ochnaflavone, cryptomerin B and isocryptomerin showed the suppressive activity against lymphocyte proliferation induced by Con A or LPS. Apigenin (flavone) and quercetin (flavonol) were suppressive against Con A-induced lymphocyte proliferation, but not against LPS-induced lymphocyte proliferation at the same concentration range. Biflavonoids were found to be irreversible inhibitors of lymphocyte proliferation. This is the first report describing the suppressive effects of naturally-occurring biflavonoids against lymphocyte proliferation.
IT 20931-58-2, Isocryptomerin 22012-98-2, Cryptomerin B
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(suppression of lymphocyte proliferation by naturally-occurring biflavonoids)
RN 20931-58-2 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5-hydroxy-2-(4-hydroxyphenyl)-7-methoxy- (CA INDEX NAME)

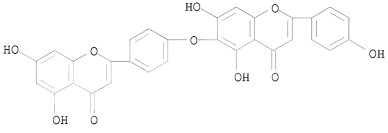


RN 22012-98-2 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5-hydroxy-7-methoxy-2-(4-methoxyphenyl)- (CA INDEX NAME)



L31 ANSWER 39 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:544919 HCAPLUS
DOCUMENT NUMBER: 123:289
ORIGINAL REFERENCE NO.: 123:55a,58a
TITLE: Comparative antilipoperoxidant, antinecrotic and scavenging properties of terpenes and biflavones from Ginkgo and some flavonoids
AUTHOR(S): Joyeux, M.; Lobstein, A.; Anton, R.; Mortier, F.
CORPORATE SOURCE: CEREPHA, Metz, F-57000, Fr.
SOURCE: Planta Medica (1995), 61(2), 126-9
CODEN: PLMEAA; ISSN: 0032-0943
PUBLISHER: Thieme
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Ginkgo biloba extract is known to be efficient in diseases associated with free radical generation. This study compares the in vitro effect of some constituents of Ginkgo against lipid peroxidn. and cell necrosis of isolated rat hepatocytes, and against superoxide anion which is generally implicated in cell damages.
IT 19202-36-9, Hinokiflavone
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(comparative antilipoperoxidant and antinecrotic and scavenging

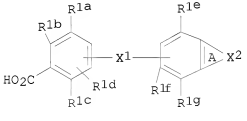
properties of terpenes and biflavones from Ginkgo and some flavonoids)
RN 19202-36-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



L31 ANSWER 40 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:408500 HCAPLUS
DOCUMENT NUMBER: 122:160472
ORIGINAL REFERENCE NO.: 122:29573a,29576a
TITLE: Preparation of pyran moiety-containing benzoic acid analogs as testosterone 5α-reductase inhibitors
INVENTOR(S): Hara, Hiroshi; Igarashi, Susumu; Isaka, Masahiko; Nagaoka, Hitoshi; Kamitoku, Hiroshi
PATENT ASSIGNEE(S): Yamanouchi Pharma Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06312976	A	19941108	JP 1993-124963	19930428

PRIORITY APPLN. INFO.: JP 1993-124963 19930428
OTHER SOURCE(S): CASREACT 122:160472; MARPAT 122:160472
GI



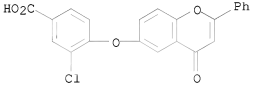
AB The title compds. [I; R1a-R1g = H, alkyl, alkenyl, alkynyl, halo, etc.; X1 = O, S; X2 = O, S, (un)substituted imino], testosterone 5α-reductase inhibitors (no data) and therefore useful for treatment of prostate

enlargement, are prepared 5-(Benzyloxy)indole in DMSO was reacted with benzyl bromide at room temperature for 3 h to give 1-benzyl-5-(benzyloxy)-1H-indole, which was hydrogenolyzed to give 1-benzyl-5-hydroxy-1H-indole, which was reacted with 3-chloro-4-fluorobenzonitrile to give 3-chloro-4-[(1-benzyl-1H-indol-5-yl)oxy]benzonitrile, which was refluxed with KOH for 3 h to give the title compound 3-chloro-4-[(1-benzyl-1H-indol-5-yl)oxy]benzoic acid.

IT 161460-10-2P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of pyran moiety-containing benzoic acid analogs as testosterone 5α-reductase inhibitors)

RN 161460-10-2 HCAPLUS

CN Benzoic acid, 3-chloro-4-[(4-oxo-2-phenyl-4H-1-benzopyran-6-yl)oxy]- (CA INDEX NAME)



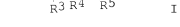
L31 ANSWER 41 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:	1993:450555 HCAPLUS
DOCUMENT NUMBER:	119:50555
ORIGINAL REFERENCE NO.:	119:9189a,9192a
TITLE:	Electrically conductive polyoxyphenylene compositions for heat-resistant IC trays
INVENTOR(S):	Nakazawa, Keiichi; Ueda, Sumio
PATENT ASSIGNEE(S):	Asahi Chemical Industry Co., Ltd., Japan
SOURCE:	Jpn. Kokai Tokkyo Koho, 12 pp. CODEN: JKXXAF
DOCUMENT TYPE:	Patent
LANGUAGE:	Japanese
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04288363	A	19921013	JP 1991-77258	19910318
JP 3073779	B2	20000807		
PRIORITY APPLN. INFO.:			JP 1991-77258	19910318

GI

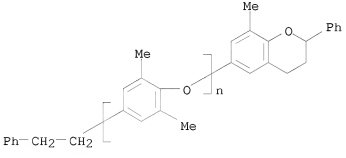


I

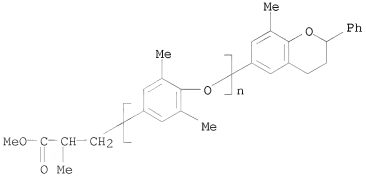
AB The title compns. with good moldability and no delamination comprise (a) polyoxyphenylenes containing >0.01% terminal group I (R1-9 = H, halo, hydrocarbyl; R6-R7 and/or R8-R9 may form spiro-ring) 10-99, (b) a 50-90:10-50 copolymer (II) of a vinyl aromatic compound block and an olefin block (with unsatn. <20%) 1-90, (c) a 20-50:50-80 II 0-10%, and (d) 3-40 phr elec. conductive carbon black. Thus, 2,6-dimethylxylenol was polymerized in the presence of dibutylamine followed by reacting with styrene to give a polyoxyphenylene with I (R1 = Me, R2-8 = H, R9 = Ph), which was blended with a styrene-olefin block copolymer and Ketjen Black EC and molded to give elec. conductive moldings with good heat resistance.

IT 148828-31-3 148828-32-4 148828-33-5
148828-34-6
RL: USES (Uses)
(blends with styrene block copolymers and carbon black, for elec. conductive IC trays)

RN 148828-31-3 HCAPLUS
CN Poly[oxy(2,6-dimethyl-1,4-phenylene)], α-(3,4-dihydro-8-methyl-2-phenyl-2H-1-benzopyran-6-yl)-ω-(2-phenylethyl)- (9CI) (CA INDEX NAME)

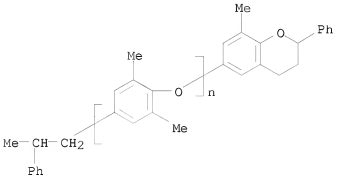


RN 148828-32-4 HCAPLUS
CN Poly[oxy(2,6-dimethyl-1,4-phenylene)], α-(3,4-dihydro-8-methyl-2-phenyl-2H-1-benzopyran-6-yl)-ω-(3-methoxy-2-methyl-3-oxopropyl)- (9CI) (CA INDEX NAME)

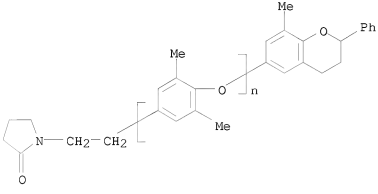


RN 148828-33-5 HCAPLUS

CN Poly[oxy(2,6-dimethyl-1,4-phenylene)], α-(3,4-dihydro-8-methyl-2-phenyl-2H-1-benzopyran-6-yl)-ω-(2-phenylpropyl)- (9CI) (CA INDEX NAME)



RN 148828-34-6 HCAPLUS
CN Poly[oxy(2,6-dimethyl-1,4-phenylene)], α-(3,4-dihydro-8-methyl-2-phenyl-2H-1-benzopyran-6-yl)-ω-[2-(2-oxo-1-pyrrolidinyl)ethyl]- (9CI) (CA INDEX NAME)



L31 ANSWER 42 OF 42 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:	1989:614389 HCAPLUS
DOCUMENT NUMBER:	111:214389
ORIGINAL REFERENCE NO.:	111:35557a,35560a
TITLE:	Preparation and formulation of 7-methanesulfonylamino-6-phenoxy-4H-1-benzopyran-4-ones and analogs as antiinflammatory agents
INVENTOR(S):	Takano, Shuntaro; Yoshida, Chosaku; Inaba, Takihiro; Tanaka, Keiichi; Takeno, Ryuko; Nagaki, Hideyoshi; Shimotori, Tomoya; Makino, Shinji
PATENT ASSIGNEE(S):	Toyama Chemical Co., Ltd., Japan
SOURCE:	Ger. Offen., 142 pp. CODEN: GWXXBX
DOCUMENT TYPE:	Patent
LANGUAGE:	German

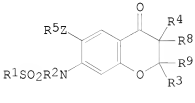
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3834204	A1	19890420	DE 1988-3834204	19881007
DE 3834204	C2	19920423		
JP 02049778	A	19900220	JP 1988-250811	19881006
JP 07053725	B	19950607		
FI 8804626	A	19890409	FI 1988-4626	19881007
FI 98460	B	19970314		
FI 98460	C	19970625		
SE 8803570	A	19890409	SE 1988-3570	19881007
SE 468595	B	19930215		
SE 468595	C	19930617		
AU 8823489	A	19890413	AU 1988-23489	19881007
AU 605363	B2	19910110		
FR 2621585	A1	19890414	FR 1988-13205	19881007
FR 2621585	B1	19940128		
NL 8802464	A	19890501	NL 1988-2464	19881007
NL 194914	B	20030303		
NL 194914	C	20030704		
GB 2210879	A	19890621	GB 1988-23567	19881007
GB 2210879	B	19910918		
ES 2013801	A6	19900601	ES 1988-3062	19881007
US 4954518	A	19900904	US 1988-255121	19881007
BE 1002226	A5	19901023	BE 1988-1158	19881007
CH 679397	A5	19920214	CH 1988-3763	19881007
CA 1320959	C	19930803	CA 1988-579624	19881007
AT 8802495	A	19930615	AT 1988-2495	19881010
AT 397088	B	19940125		
ES 2017836	A6	19910301	ES 1989-3464	19891013
ES 2017837	A6	19910301	ES 1989-3466	19891013
ES 2017838	A6	19910301	ES 1989-3467	19891013
ES 2017839	A6	19910301	ES 1989-3468	19891013
ES 2018111	A6	19910316	ES 1989-3463	19891013
ES 2018112	A6	19910316	ES 1989-3465	19891013
ES 2018113	A6	19910316	ES 1989-3469	19891013
JP 07267943	A	19951017	JP 1995-2492	19950111

PRIORITY APPLN. INFO.:

JP 1987-254251	A	19871008
JP 1988-119990	A	19880517
JP 1988-250811	A	19881006

OTHER SOURCE(S): MARPAT 111:214389
GI



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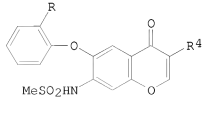
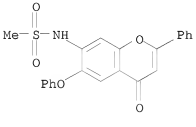


III

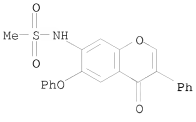
AB The title compds. [I; R1 = (halo)alkyl, alkenyl, aryl; R2 = H, alkyl, acyl; R3 = H, halo, cyano, N3, CHO, CO2H, OH, alkoxycarbonyl, (un)substituted alkyl, alkoxy, PhO, cycloalkyl, CONH2, NH2, Ph; R4 = H, NO2, cyano, CO2H, acyl, OH, alkoxycarbonyl, (un)substituted alkyl, alkoxy, alkylthio, PhS, alkenyl, alkynyl, SO2NH2, alkylsulfinyl, alkylsulfonyl, amidino, Ph, heterocyclyl, NR6R7, CONR6R7; R5 = (un)substituted Ph, thienyl, furyl, pyridyl; R6 = H, OH, cyano, alkoxycarbonyl, (un)substituted alkyl, cycloalkyl, Ph, NH2, acyl, carbamoyl, etc.; R7 = H, (un)substituted alkyl, alkoxy, Ph, cycloalkyl; NR6R7 = heterocyclyl; R7,R8 = H; R7R8 = bond; Z = O, S, NH] were prepared I are outstanding antiinflammatory agents and show essentially no ulcerative effect, and are also useful as antipyretics. 3,4-(MeSO2NH)(PhO)C6H3OH (preparation given) was refluxed 30 min with ClCH2CH2CO2H in aqueous NaOH to give 3,4-(MeSO2NH)(PhO)C6H3OCH2CH2CO2H which was stirred 1.5 h at 65-70° with PPA to give I (R1 = Me, R2 = R3 = R4 = R8 = R9 = H, R5 = Ph, Z = O) (II). The latter was brominated to II (R4 = Br), which was stirred 1 h at 70-75° with NaN3 in DMF and conversion of the resulting azide into an amine to to give benzopyranone III (R = H, R4 = NH2). The latter was stirred 1 h in CH2C12 with a mixture of HCO2H and Ac2O which had stirred 1.5 h at 40-45° to give III (R = H, R4 = NHCHO). III (R = F, R4 = NHCHO) (IV) gave ≥40% inhibition of carrageenin-induced paw edema in rats receiving up to 10 mg/kg orally. Capsules were prepared each containing
IV 50, lactose 114.5, starch 20, hydroxypropylcellulose 2, silica 1.5, ECG 505 10, and Mg stearate 2 mg.

IT 123662-65-7P 123663-35-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as antiinflammatory agent)

RN 123662-65-7 HCAPLUS
CN Methanesulfonamide, N-(4-oxo-6-phenoxy-2-phenyl-4H-1-benzopyran-7-yl)- (CA INDEX NAME)



RN 123663-35-4 HCAPLUS
CN Methanesulfonamide, N-(4-oxo-6-phenoxy-3-phenyl-4H-1-benzopyran-7-yl)- (CA INDEX NAME)



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=> file caold
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   253.25    1009.19

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                   -35.20     -38.40

FILE 'CAOLD' ENTERED AT 17:56:03 ON 05 SEP 2008
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FILE COVERS 1907-1966
FILE LAST UPDATED:  01 May 1997 (19970501/UP)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.  Title keywords, authors, patent
  assignees, and patent information, e.g., patent numbers, are
  now searchable from 1907-1966.  TIFF images of CA abstracts
  printed between 1907-1966 are available in the PAGE
  display formats.

  New CAS Information Use Policies, enter HELP USAGETERMS for details.

  This file supports REGlstRY for direct browsing and searching of
  all substance data from the REGISTRY file.  Enter HELP FIRST for
  more information.

  CAOLD will be discontinued and removed from associated database
  clusters.

    . November 22, 2008 - removed from database clusters
    . December 31, 2008 - removed from STN

  Content previously available only in CAOLD is now available
  in CA/CAplus.  To learn more about the options available for
  transferring saved search queries and answer sets to CA/CAplus,
  contact your STN Service Center.

=> d his

     (FILE 'HOME' ENTERED AT 17:34:33 ON 05 SEP 2008)
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```
     FILE 'REGISTRY' ENTERED AT 17:35:00 ON 05 SEP 2008
L1                STRUCTURE UPLOADED
L2            0 S L1
L3                STRUCTURE UPLOADED
L4            1 S L3
L5                STRUCTURE UPLOADED
L6            0 S L5
L7            1 S L5 FULL

     FILE 'HCAPLUS' ENTERED AT 17:44:04 ON 05 SEP 2008
L8            1 S L7

     FILE 'CAOLD' ENTERED AT 17:44:14 ON 05 SEP 2008
L9            0 S L7

     FILE 'REGISTRY' ENTERED AT 17:44:20 ON 05 SEP 2008
L10               STRUCTURE UPLOADED
L11           0 S L10
L12           1 S L10 FULL
L13           1 S L12 NOT L7

     FILE 'HCAPLUS' ENTERED AT 17:45:55 ON 05 SEP 2008
L14           1 S L13

     FILE 'CAOLD' ENTERED AT 17:46:05 ON 05 SEP 2008
L15           0 S L13

     FILE 'REGISTRY' ENTERED AT 17:46:11 ON 05 SEP 2008
L16               STRUCTURE UPLOADED
L17          14 S L16
L18         232 S L16 FULL

     FILE 'HCAPLUS' ENTERED AT 17:47:49 ON 05 SEP 2008
L19           2 S L18
L20           2 S L19 AND OTSOMAA, L?/AU

     FILE 'CAOLD' ENTERED AT 17:48:39 ON 05 SEP 2008
L21           0 S L18

     FILE 'REGISTRY' ENTERED AT 17:49:36 ON 05 SEP 2008
L22               STRUCTURE UPLOADED
L23           0 S L22
L24         178 S L22 FULL

     FILE 'HCAPLUS' ENTERED AT 17:53:07 ON 05 SEP 2008
L25           0 S L24 AND OTSOMAAA, L?/AU
L26           1 S L24 AND KOSKELAINEN, T?/AU
L27         232 S L24
L28           1 S L27 AND OTSOMAA, L?/AU
L29          43 S L24/USES
L30           1 S L29 AND OTSOMAA, L?/AU
L31          42 S L29 NOT L30
L32           0 S L31 AND KOSKELAINEN, T?/AU
L33           0 S L31 AND KARJALAINEN, A?/AU
L34           0 S L31 AND RASKU, S?/AU
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L35           0 S L31 AND POLLESELLO, P?/AU
L36           0 S L31 AND LEVIJOKI, J?/AU

     FILE 'CAOLD' ENTERED AT 17:56:03 ON 05 SEP 2008

=> s l24
L37         14 L24

=> d l37, all, 1-14

L37  ANSWER 1 OF 14  CAOLD  COPYRIGHT 2008 ACS on STN
AN   CA64:16278c  CAOLD
TI   electron-microscopic study of the action of pepsin and ribonuclease on the
     meristematic cells of radishes and squash
AU   Thomas, Pierre
IT     521-50-6    1617-53-4

L37  ANSWER 2 OF 14  CAOLD  COPYRIGHT 2008 ACS on STN
AN   CA64:11158c  CAOLD
TI   synthesis of hinokiflavone pentamethyl ether
AU   Krishnan, S. K.; Murti, V. V. S.; Seshadri, T. R.
IT     1919-74-0

L37  ANSWER 3 OF 14  CAOLD  COPYRIGHT 2008 ACS on STN
AN   CA63:9908b  CAOLD
TI   formation of flavones by thermal condensation of monosubstituted
     monophenols and ethyl 3,4,5-trimethoxybenzoylacetate
AU   Vialard-Goudou, Andre; Blanchecotte, N.
IT     3044-54-0    3044-55-1    3044-56-2    3044-57-3    3044-58-4
     3044-59-5

L37  ANSWER 4 OF 14  CAOLD  COPYRIGHT 2008 ACS on STN
AN   CA62:5248b  CAOLD
TI   reaction of flavone derivs. with Sr - (I) precipitating reaction of flavone
     derivs. with Sr
AU   Iritani, Nobuhiko; Takino, Y.; Nakano, T.; Kazama, S.
IT     1244-78-6    1245-15-4    1247-97-8    1974-08-9    2068-02-2
     2726-83-2   31326-82-6   97979-14-1   98493-60-8

L37  ANSWER 5 OF 14  CAOLD  COPYRIGHT 2008 ACS on STN
AN   CA62:5247g  CAOLD
TI   naturally occurring hinokiflavone methyl ethers
AU   Kawano, Nobusuke; Miura, H.; Waiss, A. C., Jr.
IT     521-50-6    1230-19-9    1262-87-9    1447-85-4
     1919-74-0   22012-97-1   31326-81-5

L37  ANSWER 6 OF 14  CAOLD  COPYRIGHT 2008 ACS on STN
AN   CA60:14462f  CAOLD
TI   flavans and related compds. - (I) hydroxyflavans
AU   Rao, C. Bheemasankara; Venkateswarlu, V.
IT   26081-90-3   54560-32-6   93878-19-4   94549-43-6   95020-88-5
     95431-54-2   95486-82-1   95560-47-7   95625-98-2   95697-57-7
     96669-22-6   96671-80-6   98220-95-2   98637-74-2  102185-89-7

L37  ANSWER 7 OF 14  CAOLD  COPYRIGHT 2008 ACS on STN
AN   CA55:10425d  CAOLD
```

TI constituents of the plants of Coniferae and allied orders - (XLVI) isolation of hinokiflavone from the leaves of Cryptomeria japonica
AU Kawano, Nobusuke
IT 19202-36-9 19202-39-2 19825-55-9

L37 ANSWER 8 OF 14 CAOLD COPYRIGHT 2008 ACS on STN
AN CA54:24698i CAOLD
TI constituents of plants of Coniferae and allied orders - (XL-XLI) structure of hinokiflavone, a flavonoid from the leaves of Chamaecyparis obtusa (4) degradation of hinokiflavone pentamethyl ether in ethanolic KOH solution and the structures of substance Y and Z, (5) in methanolic Ba(OH)2 solution
AU Fukui, Yoshio
IT 90-24-4 521-50-6 717-14-6 854-04-6
19202-36-9 19202-39-2 51758-31-7 99076-32-1
100622-10-4 101585-43-7 101595-58-8 101597-97-1 101597-99-3
101790-81-2 101790-82-3 103153-99-7 103155-88-0 103649-83-8
108170-07-6 109560-30-7 113863-14-2 122725-13-7

L37 ANSWER 9 OF 14 CAOLD COPYRIGHT 2008 ACS on STN
AN CA54:24698d CAOLD
TI constituents of plants of Coniferae and allied orders - (XXXIX) structure of hinokiflavone, a flavonoid from the leaves of Chamaecyparis obtusa (3) structure of substance X and oxoflavone
AU Kawano, Nobusuke; Fukui, Y.
IT 621-23-8 19202-36-9 101169-71-5 102948-15-2 108170-07-6
114255-62-8 114398-38-8 115830-14-3 116056-51-0 118953-23-4

L37 ANSWER 10 OF 14 CAOLD COPYRIGHT 2008 ACS on STN
AN CA54:24698a CAOLD
TI constituents of the plants of Coniferae and allied orders - (XXXVIII) structure of hinokiflavone, a flavonoid from the leaves of Chamaecyparis obtusa (2) composition of hinokiflavone and its degradation in KOH solution
AU Kariyone, Tatsuo; Fukui, Y.
IT 19202-36-9 19202-39-2 19825-55-9
124162-05-6 124162-09-0

L37 ANSWER 11 OF 14 CAOLD COPYRIGHT 2008 ACS on STN
AN CA54:17387a CAOLD
TI structure of hinokiflavone, a new type bisflavonoid
AU Fukui, Yoshio; Kawano, N.
IT 90-24-4 521-50-6 1919-74-0 3361-72-6
19202-36-9 100622-10-4 101110-96-7 101169-71-5 101597-97-1
103153-99-7 106592-95-4 108170-07-6 109101-96-4 109442-64-0
112742-08-2 114254-36-3

L37 ANSWER 12 OF 14 CAOLD COPYRIGHT 2008 ACS on STN
AN CA53:3204b CAOLD
TI synthesis of derivs. of carbamic, thiocarbamic, and diothiocarbamic acids
AU Macko, Jozef
IT 3432-25-5 19202-36-9 20784-98-9 20784-99-0 37982-60-8
61670-49-3 99071-72-4 99072-02-3 100135-15-7 102554-57-4
102554-71-2 104510-11-4 109017-42-7

L37 ANSWER 13 OF 14 CAOLD COPYRIGHT 2008 ACS on STN
AN CA53:3203b CAOLD
TI flavonoids of the leaves of Coniferae and allied plants - (I) flavonoid

from the leaves of Torreya nucifera, (II) Cycas revoluta and Cryptomeria japonica, (III) Taxus cuspidata and relation between ginkgetin, kayaflavone, sciadopitysin, and sotetsuflavone, (IV) Chamaecyparis obtusa
AU Kariyone, Tatsuo; Sawada, T.
IT 481-45-8 521-34-6 2608-21-1 3778-25-4 3778-26-5
17482-35-8 17482-36-9 19202-36-9 63043-62-9 67882-15-9
107225-53-6 108677-14-1 120297-65-6 122426-01-1 124270-14-0

L37 ANSWER 14 OF 14 CAOLD COPYRIGHT 2008 ACS on STN
AN CA52:18390f CAOLD
TI constituents of the plant of Coniferae and allied orders - (XX) components of the leaves of Metasequoia glytostroboides (1)
AU Kariyone, Tatsuo; Takahashi, M.; Isoi, K.; Yoshikura, M.
IT 19202-36-9

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	10.12	1019.31

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-38.40

FILE 'REGISTRY' ENTERED AT 17:56:36 ON 05 SEP 2008
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DICTIONARY FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4

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TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> S 521-50-6/RN

L38 1 521-50-6/RN

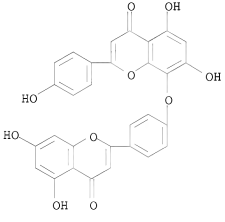
=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L38 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.65 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L38 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
RN 521-50-6 REGISTRY
CN 4H-1-Benzopyran-4-one, 8-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Flavone, 4''',5,5'',7,7'''-pentahydroxy-4',8''-oxydi- (6CI)
CN Flavone, 4',5,5'',7,7'''-pentahydroxy-4''',8-oxydi- (7CI, 8CI)
OTHER NAMES:
CN Lanaroflavone
MF C30 H18 O10
LC STN Files: AGRICOLA, BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, TOXCENTER
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PRP (Properties); USES (Uses); NORL (No role in record)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

12 REFERENCES IN FILE CA (1907 TO DATE)
12 REFERENCES IN FILE CAPLUS (1907 TO DATE)
4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.46	1021.77

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-38.40

FILE 'REGISTRY' ENTERED AT 17:56:56 ON 05 SEP 2008
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STRUCTURE FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4
DICTIONARY FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4

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REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> S 1919-74-0/RN

L39   1 1919-74-0/RN

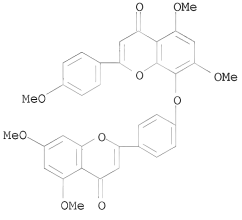
=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L39 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.65 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L39 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
RN 1919-74-0 REGISTRY
CN 4H-1-Benzopyran-4-one, 8-[4-(5,7-dimethoxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dimethoxy-2-(4-methoxyphenyl)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Flavone, 4''',5,5'',7,7''-pentamethoxy-4',8''-oxydi- (6CI)
CN Flavone, 4',5,5'',7,7'''-pentamethoxy-4''',8-oxydi- (7CI, 8CI)
OTHER NAMES:
CN Lanaroflavone pentamethyl ether
CN Penta-O-methyllanaroflavone
DR 11036-51-4
MF C35 H28 O10
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: ANST (Analytical study); PREP (Preparation); PRP (Properties)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

17 REFERENCES IN FILE CA (1907 TO DATE)
17 REFERENCES IN FILE CAPLUS (1907 TO DATE)
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=> FIL REGISTRY

COST IN U.S. DOLLARS SINCE FILE TOTAL

Updated Search

	ENTRY	SESSION
FULL ESTIMATED COST	2.46	1024.23

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-38.40

FILE 'REGISTRY' ENTERED AT 17:57:09 ON 05 SEP 2008
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STRUCTURE FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4
DICTIONARY FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4

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TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

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REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> S 3044-59-5/RN

L40 1 3044-59-5/RN

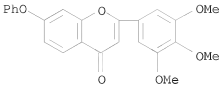
=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L40 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.65 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L40 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
RN 3044-59-5 REGISTRY
CN Flavone, 3',4',5'-trimethoxy-7-phenoxy- (7CI, 8CI) (CA INDEX NAME)
MF C24 H20 O6
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.46	1026.69

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-38.40

FILE 'REGISTRY' ENTERED AT 17:57:25 ON 05 SEP 2008
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STRUCTURE FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4
DICTIONARY FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4

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REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

```
=> S 31326-82-6/RN

L41           1 31326-82-6/RN

=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L41 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.65 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L41  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   31326-82-6  REGISTRY
CN   Flavone, dihydroxytrimethoxy-4''',8-oxydi- (7CI, 8CI)  (CA INDEX NAME)
MF   C33 H24 O10
CI   IDS
LC   STN Files:   CA, CAOLD, CAPLUS
DT.CA  CAplus document type:  Journal
RL.NP  Roles from non-patents:  PREP (Preparation)
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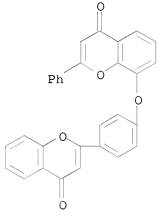
PAGE 1-A



3 (D1—O—Me)

PAGE 2-A

2 (D1—OH)

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              2 REFERENCES IN FILE CA (1907 TO DATE)
              2 REFERENCES IN FILE CAPLUS (1907 TO DATE)
              1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)


=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF  FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=> FIL REGISTRY

COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                   2.46    1029.15

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)      SINCE FILE      TOTAL
                                                     ENTRY    SESSION
CA SUBSCRIBER PRICE                                   0.00     -38.40

FILE 'REGISTRY' ENTERED AT 17:57:41 ON 05 SEP 2008
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STRUCTURE FILE UPDATES:    4 SEP 2008  HIGHEST RN 1046534-52-4
DICTIONARY FILE UPDATES:   4 SEP 2008  HIGHEST RN 1046534-52-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> S 521-50-6/RN

L42           1 521-50-6/RN

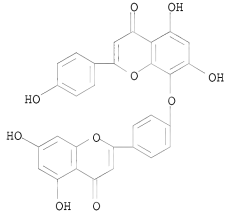
=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED
```

=> D L42 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.65 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L42 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
RN 521-50-6 REGISTRY
CN 4H-1-Benzopyran-4-one, 8-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Flavone, 4''',5,5'',7,7'''-pentahydroxy-4',8''-oxydi- (6CI)
CN Flavone, 4',5,5'',7,7'''-pentahydroxy-4''',8-oxydi- (7CI, 8CI)
OTHER NAMES:
CN Lanaroflavone
MF C30 H18 O10
LC STN Files: AGRICOLA, BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, TOXCENTER
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PRP (Properties); USES (Uses); NORL (No role in record)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

12 REFERENCES IN FILE CA (1907 TO DATE)
12 REFERENCES IN FILE CAPLUS (1907 TO DATE)
4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

10541677

=>

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.46	1031.61

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-38.40

FILE 'REGISTRY' ENTERED AT 17:58:01 ON 05 SEP 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4
DICTIONARY FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> S 122426-01-1/RN

L43 1 122426-01-1/RN

=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L43 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.65 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

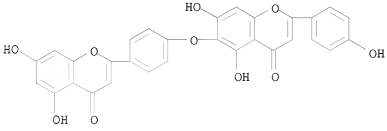
L43 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
RN 122426-01-1 REGISTRY
CN Hinokiflavone, tetra-O-methyl- (6CI) (CA INDEX NAME)
MF C34 H26 O10

10541677

CI IDS
SR CAOLD
LC STN Files: CA, CAOLD, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation)

CM 1

CRN 19202-36-9
CMF C30 H18 O10



CM 2

CRN 67-56-1
CMF C H4 O

H_3C-OH

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.46	1034.07
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-38.40

FILE 'REGISTRY' ENTERED AT 17:58:23 ON 05 SEP 2008

Updated Search

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4
DICTIONARY FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> S 122725-13-7/RN

L44 1 122725-13-7/RN

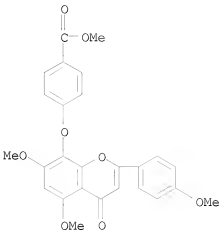
=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L44 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.65 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L44 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
RN 122725-13-7 REGISTRY
CN Benzoic acid, 4-[[5,7-dimethoxy-2-(4-methoxyphenyl)-4-oxo-4H-1-benzopyran-8-yl]oxy]-, methyl ester (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Benzoic acid, p-[5,7-dimethoxy-2-(p-methoxyphenyl)-4-oxo-4H-1-benzopyran-8-yloxy]-, methyl ester (6CI)
MF C26 H22 O8
SR CAOLD
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); NORL (No role in record)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.46	1036.53

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-38.40

FILE 'REGISTRY' ENTERED AT 17:58:40 ON 05 SEP 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4
DICTIONARY FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> S 112742-08-2/RN

L45 1 112742-08-2/RN

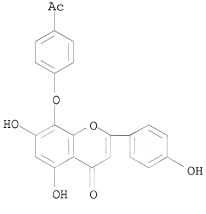
=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L45 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.65 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L45 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
RN 112742-08-2 REGISTRY
CN Flavone, 8-(p-acetylphenoxy)-4',5,7-trihydroxy- (6CI) (CA INDEX NAME)
MF C23 H16 O7
SR CAOLD
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.46	1038.99

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-38.40

FILE 'REGISTRY' ENTERED AT 17:58:59 ON 05 SEP 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4
DICTIONARY FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> S 521-50-6/RN

L46 1 521-50-6/RN

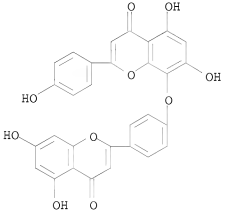
=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L46 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.65 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L46 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
RN 521-50-6 REGISTRY
CN 4H-1-Benzopyran-4-one, 8-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Flavone, 4''',5,5'',7,7'''-pentahydroxy-4',8''-oxydi- (6CI)
CN Flavone, 4',5,5'',7,7'''-pentahydroxy-4''',8-oxydi- (7CI, 8CI)
OTHER NAMES:
CN Lanaroflavone
MF C30 H18 O10
LC STN Files: AGRICOLA, BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, TOXCENTER
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PRP (Properties); USES (Uses); NORL (No role in record)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

12 REFERENCES IN FILE CA (1907 TO DATE)
12 REFERENCES IN FILE CAPLUS (1907 TO DATE)
4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

```
=>

=> FIL REGISTRY

COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     2.46    1041.45

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00     -38.40

FILE 'REGISTRY' ENTERED AT 17:59:16 ON 05 SEP 2008
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STRUCTURE FILE UPDATES:    4 SEP 2008  HIGHEST RN 1046534-52-4
DICTIONARY FILE UPDATES:   4 SEP 2008  HIGHEST RN 1046534-52-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> S 1919-74-0/RN

L47          1 1919-74-0/RN

=> SET NOTICE 1 DISPLAY

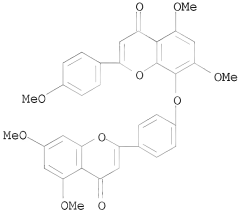
NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L47 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.65 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L47  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   1919-74-0  REGISTRY
CN   4H-1-Benzopyran-4-one, 8-[4-(5,7-dimethoxy-4-oxo-4H-1-benzopyran-2-
```

yl)phenoxy]-5,7-dimethoxy-2-(4-methoxyphenyl)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Flavone, 4''',5,5'',7,7''-pentamethoxy-4',8''-oxydi- (6CI)
CN Flavone, 4',5,5'',7,7''-pentamethoxy-4''',8-oxydi- (7CI, 8CI)
OTHER NAMES:
CN Lanaroflavone pentamethyl ether
CN Penta-O-methyllanaroflavone
DR 11036-51-4
MF C35 H28 O10
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: ANST (Analytical study); PREP (Preparation);
PRP (Properties)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

17 REFERENCES IN FILE CA (1907 TO DATE)
17 REFERENCES IN FILE CAPLUS (1907 TO DATE)
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.46	1043.91

```
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)        SINCE FILE      TOTAL
                                                     ENTRY    SESSION
CA SUBSCRIBER PRICE                                   0.00     -38.40

FILE 'REGISTRY' ENTERED AT 17:59:47 ON 05 SEP 2008
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Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES:    4 SEP 2008  HIGHEST RN 1046534-52-4
DICTIONARY FILE UPDATES:   4 SEP 2008  HIGHEST RN 1046534-52-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> S 122426-01-1/RN

L48           1 122426-01-1/RN

=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L48 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.65 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L48  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   122426-01-1  REGISTRY
CN   Hinokiflavone, tetra-O-methyl- (6CI)  (CA INDEX NAME)
MF   C34 H26 O10
CI   IDS
SR   CAOLD
LC   STN Files:   CA, CAOLD, CAPLUS
DT.CA  CAplus document type:  Journal
RL.NP  Roles from non-patents:  PREP (Preparation)

     CM   1
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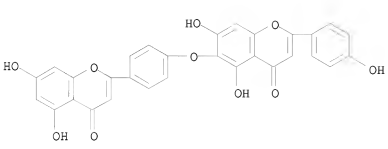
10541677

CRN 19202-36-9
CMF C30 H18 O10



CM 2

CRN 67-56-1
CMF C H4 O

H_3C-OH

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.46	1046.37
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-38.40

FILE 'REGISTRY' ENTERED AT 18:00:20 ON 05 SEP 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4

Updated Search

DICTIONARY FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> S 22012-97-1/RN

L49 1 22012-97-1/RN

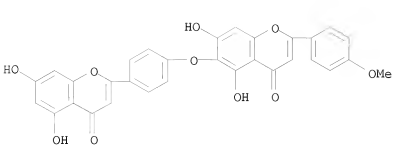
=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L49 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.65 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L49 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
RN 22012-97-1 REGISTRY
CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-methoxyphenyl)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Flavone, 4'-methoxy-4''',6-oxybis[5,7-dihydroxy- (8CI)
CN Flavone, 4'-methoxy-4''',8-oxybis[5,7-dihydroxy- (7CI)
OTHER NAMES:
CN Cryptomerin A
DR 1262-87-9
MF C31 H20 O10
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, NAPRALERT
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PRP (Properties); RACT (Reactant or reagent); NORL (No role in record)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10 REFERENCES IN FILE CA (1907 TO DATE)
10 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.46	1048.83

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-38.40

FILE 'REGISTRY' ENTERED AT 18:00:34 ON 05 SEP 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4
DICTIONARY FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of

experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> S 114398-38-8/RN

L50 1 114398-38-8/RN

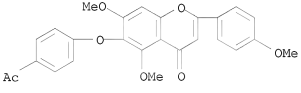
=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L50 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.65 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L50 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
RN 114398-38-8 REGISTRY
CN Flavone, 6-(p-acetylphenoxy)-4',5,7-trimethoxy- (6CI) (CA INDEX NAME)
MF C26 H22 O7
SR CAOLD
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=> FIL REGISTRY

```
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                      ENTRY     SESSION
FULL ESTIMATED COST                                    3.38     1052.21

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                      ENTRY     SESSION
CA SUBSCRIBER PRICE                                    0.00      -38.40

FILE 'REGISTRY' ENTERED AT 18:02:24 ON 05 SEP 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:    4 SEP 2008  HIGHEST RN 1046534-52-4
DICTIONARY FILE UPDATES:   4 SEP 2008  HIGHEST RN 1046534-52-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> S 31326-81-5/RN

L51           1 31326-81-5/RN

=> SET NOTICE 1 DISPLAY

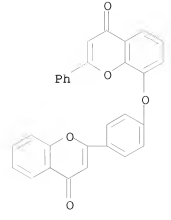
NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L51 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.65 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L51  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   31326-81-5  REGISTRY
CN   Flavone, trihydroxydimethoxy-4''',8-oxydi- (7CI, 8CI)  (CA INDEX NAME)
MF   C32 H22 O10
CI   IDS
LC   STN Files:   CA, CAOLD, CAPLUS
DT.CA  CAplus document type:  Journal
RL.NP  Roles from non-patents:  PREP (Preparation)
```

PAGE 1-A



2 (D1—O—Me)

PAGE 2-A

3 (D1—OH)

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=> d his

(FILE 'HOME' ENTERED AT 17:34:33 ON 05 SEP 2008)

FILE 'REGISTRY' ENTERED AT 17:35:00 ON 05 SEP 2008
L1 STRUCTURE UPLOADED
L2 0 S L1
L3 STRUCTURE UPLOADED
L4 1 S L3
L5 STRUCTURE UPLOADED
L6 0 S L5
L7 1 S L5 FULL

FILE 'HCAPLUS' ENTERED AT 17:44:04 ON 05 SEP 2008

```
L8            1 S L7

     FILE 'CAOLD' ENTERED AT 17:44:14 ON 05 SEP 2008
L9            0 S L7

     FILE 'REGISTRY' ENTERED AT 17:44:20 ON 05 SEP 2008
L10             STRUCTURE UPLOADED
L11           0 S L10
L12           1 S L10 FULL
L13           1 S L12 NOT L7

     FILE 'HCAPLUS' ENTERED AT 17:45:55 ON 05 SEP 2008
L14           1 S L13

     FILE 'CAOLD' ENTERED AT 17:46:05 ON 05 SEP 2008
L15           0 S L13

     FILE 'REGISTRY' ENTERED AT 17:46:11 ON 05 SEP 2008
L16             STRUCTURE UPLOADED
L17          14 S L16
L18         232 S L16 FULL

     FILE 'HCAPLUS' ENTERED AT 17:47:49 ON 05 SEP 2008
L19           2 S L18
L20           2 S L19 AND OTSOMAA, L?/AU

     FILE 'CAOLD' ENTERED AT 17:48:39 ON 05 SEP 2008
L21           0 S L18

     FILE 'REGISTRY' ENTERED AT 17:49:36 ON 05 SEP 2008
L22             STRUCTURE UPLOADED
L23           0 S L22
L24         178 S L22 FULL

     FILE 'HCAPLUS' ENTERED AT 17:53:07 ON 05 SEP 2008
L25           0 S L24 AND OTSOMAAA, L?/AU
L26           1 S L24 AND KOSKELAINEN, T?/AU
L27         232 S L24
L28           1 S L27 AND OTSOMAA, L?/AU
L29          43 S L24/USES
L30           1 S L29 AND OTSOMAA, L?/AU
L31          42 S L29 NOT L30
L32           0 S L31 AND KOSKELAINEN, T?/AU
L33           0 S L31 AND KARJALAINEN, A?/AU
L34           0 S L31 AND RASKU, S?/AU
L35           0 S L31 AND POLLESELLO, P?/AU
L36           0 S L31 AND LEVIJOKI, J?/AU

     FILE 'CAOLD' ENTERED AT 17:56:03 ON 05 SEP 2008
L37          14 S L24

     FILE 'REGISTRY' ENTERED AT 17:56:36 ON 05 SEP 2008
L38           1 S 521-50-6/RN
                SET NOTICE 1 DISPLAY
                SET NOTICE LOGIN DISPLAY
```

```
     FILE 'REGISTRY' ENTERED AT 17:56:56 ON 05 SEP 2008
L39            1 S 1919-74-0/RN
                 SET NOTICE 1 DISPLAY
                 SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:57:09 ON 05 SEP 2008
L40            1 S 3044-59-5/RN
                 SET NOTICE 1 DISPLAY
                 SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:57:25 ON 05 SEP 2008
L41            1 S 31326-82-6/RN
                 SET NOTICE 1 DISPLAY
                 SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:57:41 ON 05 SEP 2008
L42            1 S 521-50-6/RN
                 SET NOTICE 1 DISPLAY
                 SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:58:01 ON 05 SEP 2008
L43            1 S 122426-01-1/RN
                 SET NOTICE 1 DISPLAY
                 SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:58:23 ON 05 SEP 2008
L44            1 S 122725-13-7/RN
                 SET NOTICE 1 DISPLAY
                 SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:58:40 ON 05 SEP 2008
L45            1 S 112742-08-2/RN
                 SET NOTICE 1 DISPLAY
                 SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:58:59 ON 05 SEP 2008
L46            1 S 521-50-6/RN
                 SET NOTICE 1 DISPLAY
                 SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:59:16 ON 05 SEP 2008
L47            1 S 1919-74-0/RN
                 SET NOTICE 1 DISPLAY
                 SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:59:47 ON 05 SEP 2008
L48            1 S 122426-01-1/RN
                 SET NOTICE 1 DISPLAY
                 SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 18:00:20 ON 05 SEP 2008
L49            1 S 22012-97-1/RN
                 SET NOTICE 1 DISPLAY
                 SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 18:00:34 ON 05 SEP 2008
```

```
L50             1 S 114398-38-8/RN
                  SET NOTICE 1 DISPLAY
                  SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 18:02:24 ON 05 SEP 2008
L51             1 S 31326-81-5/RN
                  SET NOTICE 1 DISPLAY
                  SET NOTICE LOGIN DISPLAY

=> file caold
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                 2.46    1054.67

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)      SINCE FILE      TOTAL
                                                   ENTRY    SESSION
CA SUBSCRIBER PRICE                                 0.00     -38.40

FILE 'CAOLD' ENTERED AT 18:03:02 ON 05 SEP 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907-1966
FILE LAST UPDATED:  01 May 1997 (19970501/UP)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.  Title keywords, authors, patent
  assignees, and patent information, e.g., patent numbers, are
  now searchable from 1907-1966.  TIFF images of CA abstracts
  printed between 1907-1966 are available in the PAGE
  display formats.

  New CAS Information Use Policies, enter HELP USAGETERMS for details.

  This file supports REG1stRY for direct browsing and searching of
  all substance data from the REGISTRY file.  Enter HELP FIRST for
  more information.

  CAOLD will be discontinued and removed from associated database
  clusters.

    . November 22, 2008 - removed from database clusters
    . December 31, 2008 - removed from STN

  Content previously available only in CAOLD is now available
  in CA/CAplus.  To learn more about the options available for
  transferring saved search queries and answer sets to CA/CAplus,
  contact your STN Service Center.

=> d his

     (FILE 'HOME' ENTERED AT 17:34:33 ON 05 SEP 2008)

     FILE 'REGISTRY' ENTERED AT 17:35:00 ON 05 SEP 2008
L1              STRUCTURE UPLOADED
```

```
L2            0 S L1
L3              STRUCTURE UPLOADED
L4            1 S L3
L5              STRUCTURE UPLOADED
L6            0 S L5
L7            1 S L5 FULL

     FILE 'HCAPLUS' ENTERED AT 17:44:04 ON 05 SEP 2008
L8            1 S L7

     FILE 'CAOLD' ENTERED AT 17:44:14 ON 05 SEP 2008
L9            0 S L7

     FILE 'REGISTRY' ENTERED AT 17:44:20 ON 05 SEP 2008
L10             STRUCTURE UPLOADED
L11           0 S L10
L12           1 S L10 FULL
L13           1 S L12 NOT L7

     FILE 'HCAPLUS' ENTERED AT 17:45:55 ON 05 SEP 2008
L14           1 S L13

     FILE 'CAOLD' ENTERED AT 17:46:05 ON 05 SEP 2008
L15           0 S L13

     FILE 'REGISTRY' ENTERED AT 17:46:11 ON 05 SEP 2008
L16             STRUCTURE UPLOADED
L17          14 S L16
L18         232 S L16 FULL

     FILE 'HCAPLUS' ENTERED AT 17:47:49 ON 05 SEP 2008
L19           2 S L18
L20           2 S L19 AND OTSOMAA, L?/AU

     FILE 'CAOLD' ENTERED AT 17:48:39 ON 05 SEP 2008
L21           0 S L18

     FILE 'REGISTRY' ENTERED AT 17:49:36 ON 05 SEP 2008
L22             STRUCTURE UPLOADED
L23           0 S L22
L24         178 S L22 FULL

     FILE 'HCAPLUS' ENTERED AT 17:53:07 ON 05 SEP 2008
L25           0 S L24 AND OTSOMAAA, L?/AU
L26           1 S L24 AND KOSKELAINEN, T?/AU
L27         232 S L24
L28           1 S L27 AND OTSOMAA, L?/AU
L29          43 S L24/USES
L30           1 S L29 AND OTSOMAA, L?/AU
L31          42 S L29 NOT L30
L32           0 S L31 AND KOSKELAINEN, T?/AU
L33           0 S L31 AND KARJALAINEN, A?/AU
L34           0 S L31 AND RASKU, S?/AU
L35           0 S L31 AND POLLESELLO, P?/AU
L36           0 S L31 AND LEVIJOKI, J?/AU
```

```
     FILE 'CAOLD' ENTERED AT 17:56:03 ON 05 SEP 2008
L37         14 S L24

     FILE 'REGISTRY' ENTERED AT 17:56:36 ON 05 SEP 2008
L38          1 S 521-50-6/RN
               SET NOTICE 1 DISPLAY
               SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:56:56 ON 05 SEP 2008
L39          1 S 1919-74-0/RN
               SET NOTICE 1 DISPLAY
               SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:57:09 ON 05 SEP 2008
L40          1 S 3044-59-5/RN
               SET NOTICE 1 DISPLAY
               SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:57:25 ON 05 SEP 2008
L41          1 S 31326-82-6/RN
               SET NOTICE 1 DISPLAY
               SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:57:41 ON 05 SEP 2008
L42          1 S 521-50-6/RN
               SET NOTICE 1 DISPLAY
               SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:58:01 ON 05 SEP 2008
L43          1 S 122426-01-1/RN
               SET NOTICE 1 DISPLAY
               SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:58:23 ON 05 SEP 2008
L44          1 S 122725-13-7/RN
               SET NOTICE 1 DISPLAY
               SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:58:40 ON 05 SEP 2008
L45          1 S 112742-08-2/RN
               SET NOTICE 1 DISPLAY
               SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:58:59 ON 05 SEP 2008
L46          1 S 521-50-6/RN
               SET NOTICE 1 DISPLAY
               SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:59:16 ON 05 SEP 2008
L47          1 S 1919-74-0/RN
               SET NOTICE 1 DISPLAY
               SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:59:47 ON 05 SEP 2008
L48          1 S 122426-01-1/RN
               SET NOTICE 1 DISPLAY
```

```
                SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 18:00:20 ON 05 SEP 2008
L49            1 S 22012-97-1/RN
                SET NOTICE 1 DISPLAY
                SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 18:00:34 ON 05 SEP 2008
L50            1 S 114398-38-8/RN
                SET NOTICE 1 DISPLAY
                SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 18:02:24 ON 05 SEP 2008
L51            1 S 31326-81-5/RN
                SET NOTICE 1 DISPLAY
                SET NOTICE LOGIN DISPLAY

     FILE 'CAOLD' ENTERED AT 18:03:02 ON 05 SEP 2008

=> s l24/uses
QUALIFICATION NOT VALID FOR L24
Field code qualifications can only be applied to text
terms.

=> file reg
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                 0.46    1055.13

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)      SINCE FILE      TOTAL
                                                   ENTRY    SESSION
CA SUBSCRIBER PRICE                                 0.00     -38.40

FILE 'REGISTRY' ENTERED AT 18:03:41 ON 05 SEP 2008
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STRUCTURE FILE UPDATES:    4 SEP 2008  HIGHEST RN 1046534-52-4
DICTIONARY FILE UPDATES:   4 SEP 2008  HIGHEST RN 1046534-52-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:
```

http://www.cas.org/support/stngen/stndoc/properties.html

```
=>
Uploading C:\Documents and Settings\brobinson1\My Documents\asdfg.str

L52     STRUCTURE UPLOADED

=> s l52
SAMPLE SEARCH INITIATED 18:06:36 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -     9911 TO ITERATE

 20.2% PROCESSED     2000 ITERATIONS                                0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:       192253 TO   204187
PROJECTED ANSWERS:               0 TO        0

L53           0 SEA SSS SAM L52

=> s l52 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 18:06:41 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   201321 TO ITERATE

100.0% PROCESSED   201321 ITERATIONS                               0 ANSWERS
SEARCH TIME: 00.00.02

L54           0 SEA SSS FUL L52

=>
Uploading C:\Documents and Settings\brobinson1\My Documents\argyh.str

L55     STRUCTURE UPLOADED

=> s l55
SAMPLE SEARCH INITIATED 18:07:42 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -     5347 TO ITERATE

 37.4% PROCESSED     2000 ITERATIONS                                0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:       102555 TO   111325
PROJECTED ANSWERS:               0 TO        0

L56           0 SEA SSS SAM L55

=> s l55 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
```

```
FULL SEARCH INITIATED 18:07:46 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   105980 TO ITERATE

100.0% PROCESSED   105980 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

L57           0 SEA SSS FUL L55

=>
Uploading C:\Documents and Settings\brobinson1\My Documents\aragt.str

L58     STRUCTURE UPLOADED

=> s l58
SAMPLE SEARCH INITIATED 18:09:07 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -    15021 TO ITERATE

 13.3% PROCESSED     2000 ITERATIONS                                0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:       293078 TO   307762
PROJECTED ANSWERS:               0 TO        0

L59           0 SEA SSS SAM L58

=> s l58 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 18:09:11 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   301497 TO ITERATE

100.0% PROCESSED   301497 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.03

L60           0 SEA SSS FUL L58

=>
Uploading C:\Documents and Settings\brobinson1\My Documents\sdfgsy.str

L61     STRUCTURE UPLOADED

=> s l61
SAMPLE SEARCH INITIATED 18:11:40 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -   301372 TO ITERATE

  0.7% PROCESSED     2000 ITERATIONS                                0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **INCOMPLETE**
                        BATCH   **INCOMPLETE**
PROJECTED ITERATIONS:      5995527 TO  6059353
PROJECTED ANSWERS:               0 TO        0
```

```
L62           0 SEA SSS SAM L61

=>
Uploading C:\Documents and Settings\brobinson1\My Documents\arty.str

L63     STRUCTURE UPLOADED

=> s l63
SAMPLE SEARCH INITIATED 18:12:54 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -    79510 TO ITERATE

  2.5% PROCESSED     2000 ITERATIONS                                1 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **INCOMPLETE**
                        BATCH   **INCOMPLETE**
PROJECTED ITERATIONS:      1573419 TO  1606981
PROJECTED ANSWERS:             417 TO     1173

L64           1 SEA SSS SAM L63

=>
Uploading C:\Documents and Settings\brobinson1\My Documents\artgg.str

L65     STRUCTURE UPLOADED

=> s l65
SAMPLE SEARCH INITIATED 18:14:36 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -     1257 TO ITERATE

100.0% PROCESSED     1257 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:        23014 TO    27266
PROJECTED ANSWERS:               0 TO        0

L66           0 SEA SSS SAM L65

=> s l65 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 18:14:41 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    25767 TO ITERATE

100.0% PROCESSED    25767 ITERATIONS                                1 ANSWERS
SEARCH TIME: 00.00.01

L67           1 SEA SSS FUL L65

=> file hcaplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
```

FULL ESTIMATED COST 719.88 1775.01

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE ENTRY TOTAL SESSION

CA SUBSCRIBER PRICE 0.00 -38.40

FILE 'HCAPLUS' ENTERED AT 18:14:44 ON 05 SEP 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 5 Sep 2008 VOL 149 ISS 11
FILE LAST UPDATED: 4 Sep 2008 (20080904/ED)

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s l67/uses
             1 L67
       7178398 USES/RL
L68          1 L67/USES
                 (L67 (L) USES/RL)

=> d l68, ibib abs hitstr, 1

L68  ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:        2004:606465  HCAPLUS
DOCUMENT NUMBER:         141:157037
TITLE:                   Preparation of pyridine derivatives useful for
                         inhibiting sodium/calcium exchange system
INVENTOR(S):             Otsomaa, Leena; Koskelainen, Tuula; Karjalainen, Arto;
                         Rasku, Sirpa; Pollesello, Piero; Levijoki, Jouko
PATENT ASSIGNEE(S):      Orion Corporation, Finland
SOURCE:                  PCT Int. Appl., 108 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:
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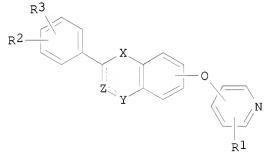
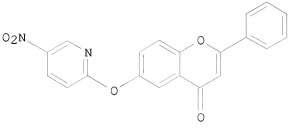
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004063191	A1	20040729	WO 2004-FI11	20040109
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ				
AU 2004203943	A1	20040729	AU 2004-203943	20040109
CA 2512184	A1	20040729	CA 2004-2512184	20040109
EP 1583759	A1	20051012	EP 2004-701023	20040109
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2004006669	A	20051220	BR 2004-6669	20040109
CN 1745078	A	20060308	CN 2004-80003357	20040109
JP 2006516271	T	20060629	JP 2006-500151	20040109
NZ 541087	A	20080430	NZ 2004-541087	20040109
IN 2005KN01287	A	20061027	IN 2005-KN1287	20050701
MX 2005PA07435	A	20050912	MX 2005-PA7435	20050708
NO 2005003730	A	20051007	NO 2005-3730	20050803
US 20060241147	A1	20061026	US 2005-541677	20051028
ZA 2005005461	A	20060329	ZA 2005-5461	20060124
PRIORITY APPLN. INFO.:			FI 2003-30 A	20030109
			WO 2004-FI11 W	20040109

OTHER SOURCE(S): MARPAT 141:157037

GI



I



II

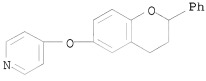
AB Title compds. I [X = O, CH2, CO; Z = divalent alkyl, bond; Y = CH2, CO,

divalent alkyl, etc.; R2-3 = H, alkyl, alkoxy, etc.; R1 = H, CN, halo, etc. with provisos] are prepared For instance, II is prepared from 2-chloro-5-nitropyridine and 6-hydroxyflavone (DMF, 120°, 30 min). I are potent inhibitors of Na+/Ca2+ exchange mechanism.

IT 728937-39-1P, 4-(2-Phenylchroman-6-yloxy)pyridine
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of pyridine derivs. useful for inhibiting sodium/calcium exchange system)

RN 728937-39-1 HCAPLUS

CN Pyridine, 4-[(3,4-dihydro-2-phenyl-2H-1-benzopyran-6-yl)oxy]- (CA INDEX NAME)



=> file caold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	8.14	1783.15

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.80	-39.20

FILE 'CAOLD' ENTERED AT 18:14:58 ON 05 SEP 2008
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file supports REGlstRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

CAOLD will be discontinued and removed from associated database

clusters.

. November 22, 2008 - removed from database clusters
. December 31, 2008 - removed from STN

Content previously available only in CAOLD is now available in CA/CAplus. To learn more about the options available for transferring saved search queries and answer sets to CA/CAplus, contact your STN Service Center.

```
=> d his

     (FILE 'HOME' ENTERED AT 17:34:33 ON 05 SEP 2008)

     FILE 'REGISTRY' ENTERED AT 17:35:00 ON 05 SEP 2008
L1             STRUCTURE UPLOADED
L2           0 S L1
L3             STRUCTURE UPLOADED
L4           1 S L3
L5             STRUCTURE UPLOADED
L6           0 S L5
L7           1 S L5 FULL

     FILE 'HCAPLUS' ENTERED AT 17:44:04 ON 05 SEP 2008
L8           1 S L7

     FILE 'CAOLD' ENTERED AT 17:44:14 ON 05 SEP 2008
L9           0 S L7

     FILE 'REGISTRY' ENTERED AT 17:44:20 ON 05 SEP 2008
L10            STRUCTURE UPLOADED
L11          0 S L10
L12          1 S L10 FULL
L13          1 S L12 NOT L7

     FILE 'HCAPLUS' ENTERED AT 17:45:55 ON 05 SEP 2008
L14          1 S L13

     FILE 'CAOLD' ENTERED AT 17:46:05 ON 05 SEP 2008
L15          0 S L13

     FILE 'REGISTRY' ENTERED AT 17:46:11 ON 05 SEP 2008
L16            STRUCTURE UPLOADED
L17         14 S L16
L18        232 S L16 FULL

     FILE 'HCAPLUS' ENTERED AT 17:47:49 ON 05 SEP 2008
L19          2 S L18
L20          2 S L19 AND OTSOMAA, L?/AU

     FILE 'CAOLD' ENTERED AT 17:48:39 ON 05 SEP 2008
L21          0 S L18

     FILE 'REGISTRY' ENTERED AT 17:49:36 ON 05 SEP 2008
L22            STRUCTURE UPLOADED
L23          0 S L22
```

```
L24         178 S L22 FULL

     FILE 'HCAPLUS' ENTERED AT 17:53:07 ON 05 SEP 2008
L25           0 S L24 AND OTSOMAAA, L?/AU
L26           1 S L24 AND KOSKELAINEN, T?/AU
L27         232 S L24
L28           1 S L27 AND OTSOMAA, L?/AU
L29          43 S L24/USES
L30           1 S L29 AND OTSOMAA, L?/AU
L31          42 S L29 NOT L30
L32           0 S L31 AND KOSKELAINEN, T?/AU
L33           0 S L31 AND KARJALAINEN, A?/AU
L34           0 S L31 AND RASKU, S?/AU
L35           0 S L31 AND POLLESELLO, P?/AU
L36           0 S L31 AND LEVIJOKI, J?/AU

     FILE 'CAOLD' ENTERED AT 17:56:03 ON 05 SEP 2008
L37          14 S L24

     FILE 'REGISTRY' ENTERED AT 17:56:36 ON 05 SEP 2008
L38           1 S 521-50-6/RN
                SET NOTICE 1 DISPLAY
                SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:56:56 ON 05 SEP 2008
L39           1 S 1919-74-0/RN
                SET NOTICE 1 DISPLAY
                SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:57:09 ON 05 SEP 2008
L40           1 S 3044-59-5/RN
                SET NOTICE 1 DISPLAY
                SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:57:25 ON 05 SEP 2008
L41           1 S 31326-82-6/RN
                SET NOTICE 1 DISPLAY
                SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:57:41 ON 05 SEP 2008
L42           1 S 521-50-6/RN
                SET NOTICE 1 DISPLAY
                SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:58:01 ON 05 SEP 2008
L43           1 S 122426-01-1/RN
                SET NOTICE 1 DISPLAY
                SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:58:23 ON 05 SEP 2008
L44           1 S 122725-13-7/RN
                SET NOTICE 1 DISPLAY
                SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:58:40 ON 05 SEP 2008
L45           1 S 112742-08-2/RN
```

```
                SET NOTICE 1 DISPLAY
                SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:58:59 ON 05 SEP 2008
L46           1 S 521-50-6/RN
                SET NOTICE 1 DISPLAY
                SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:59:16 ON 05 SEP 2008
L47           1 S 1919-74-0/RN
                SET NOTICE 1 DISPLAY
                SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:59:47 ON 05 SEP 2008
L48           1 S 122426-01-1/RN
                SET NOTICE 1 DISPLAY
                SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 18:00:20 ON 05 SEP 2008
L49           1 S 22012-97-1/RN
                SET NOTICE 1 DISPLAY
                SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 18:00:34 ON 05 SEP 2008
L50           1 S 114398-38-8/RN
                SET NOTICE 1 DISPLAY
                SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 18:02:24 ON 05 SEP 2008
L51           1 S 31326-81-5/RN
                SET NOTICE 1 DISPLAY
                SET NOTICE LOGIN DISPLAY

     FILE 'CAOLD' ENTERED AT 18:03:02 ON 05 SEP 2008

     FILE 'REGISTRY' ENTERED AT 18:03:41 ON 05 SEP 2008
L52             STRUCTURE UPLOADED
L53           0 S L52
L54           0 S L52 FULL
L55             STRUCTURE UPLOADED
L56           0 S L55
L57           0 S L55 FULL
L58             STRUCTURE UPLOADED
L59           0 S L58
L60           0 S L58 FULL
L61             STRUCTURE UPLOADED
L62           0 S L61
L63             STRUCTURE UPLOADED
L64           1 S L63
L65             STRUCTURE UPLOADED
L66           0 S L65
L67           1 S L65 FULL

     FILE 'HCAPLUS' ENTERED AT 18:14:44 ON 05 SEP 2008
L68           1 S L67/USES
```

10541677

FILE 'CAOLD' ENTERED AT 18:14:58 ON 05 SEP 2008

=> s l67
L69 0 L67

=> file reg
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 0.46 1783.61

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE ENTRY TOTAL SESSION
CA SUBSCRIBER PRICE 0.00 -39.20

FILE 'REGISTRY' ENTERED AT 18:15:06 ON 05 SEP 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4
DICTIONARY FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Documents and Settings\brobinson1\My Documents\artg.str

L70 STRUCTURE UPLOADED

=> s l70
SAMPLE SEARCH INITIATED 18:18:09 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 761 TO ITERATE

100.0% PROCESSED 761 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 13565 TO 16875
PROJECTED ANSWERS: 0 TO 0

```
L71           0 SEA SSS SAM L70

=> s l70 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 18:18:13 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    14329 TO ITERATE

100.0% PROCESSED    14329 ITERATIONS                                 1 ANSWERS
SEARCH TIME: 00.00.01

L72           1 SEA SSS FUL L70

=> d his

     (FILE 'HOME' ENTERED AT 17:34:33 ON 05 SEP 2008)

     FILE 'REGISTRY' ENTERED AT 17:35:00 ON 05 SEP 2008
L1               STRUCTURE UPLOADED
L2            0 S L1
L3               STRUCTURE UPLOADED
L4            1 S L3
L5               STRUCTURE UPLOADED
L6            0 S L5
L7            1 S L5 FULL

     FILE 'HCAPLUS' ENTERED AT 17:44:04 ON 05 SEP 2008
L8            1 S L7

     FILE 'CAOLD' ENTERED AT 17:44:14 ON 05 SEP 2008
L9            0 S L7

     FILE 'REGISTRY' ENTERED AT 17:44:20 ON 05 SEP 2008
L10              STRUCTURE UPLOADED
L11           0 S L10
L12           1 S L10 FULL
L13           1 S L12 NOT L7

     FILE 'HCAPLUS' ENTERED AT 17:45:55 ON 05 SEP 2008
L14           1 S L13

     FILE 'CAOLD' ENTERED AT 17:46:05 ON 05 SEP 2008
L15           0 S L13

     FILE 'REGISTRY' ENTERED AT 17:46:11 ON 05 SEP 2008
L16              STRUCTURE UPLOADED
L17          14 S L16
L18         232 S L16 FULL

     FILE 'HCAPLUS' ENTERED AT 17:47:49 ON 05 SEP 2008
L19           2 S L18
L20           2 S L19 AND OTSOMAA, L?/AU

     FILE 'CAOLD' ENTERED AT 17:48:39 ON 05 SEP 2008
L21           0 S L18
```

```
     FILE 'REGISTRY' ENTERED AT 17:49:36 ON 05 SEP 2008
L22                STRUCTURE UPLOADED
L23              0 S L22
L24            178 S L22 FULL

     FILE 'HCAPLUS' ENTERED AT 17:53:07 ON 05 SEP 2008
L25              0 S L24 AND OTSOMAAA, L?/AU
L26              1 S L24 AND KOSKELAINEN, T?/AU
L27            232 S L24
L28              1 S L27 AND OTSOMAA, L?/AU
L29             43 S L24/USES
L30              1 S L29 AND OTSOMAA, L?/AU
L31             42 S L29 NOT L30
L32              0 S L31 AND KOSKELAINEN, T?/AU
L33              0 S L31 AND KARJALAINEN, A?/AU
L34              0 S L31 AND RASKU, S?/AU
L35              0 S L31 AND POLLESELLO, P?/AU
L36              0 S L31 AND LEVIJOKI, J?/AU

     FILE 'CAOLD' ENTERED AT 17:56:03 ON 05 SEP 2008
L37             14 S L24

     FILE 'REGISTRY' ENTERED AT 17:56:36 ON 05 SEP 2008
L38              1 S 521-50-6/RN
                   SET NOTICE 1 DISPLAY
                   SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:56:56 ON 05 SEP 2008
L39              1 S 1919-74-0/RN
                   SET NOTICE 1 DISPLAY
                   SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:57:09 ON 05 SEP 2008
L40              1 S 3044-59-5/RN
                   SET NOTICE 1 DISPLAY
                   SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:57:25 ON 05 SEP 2008
L41              1 S 31326-82-6/RN
                   SET NOTICE 1 DISPLAY
                   SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:57:41 ON 05 SEP 2008
L42              1 S 521-50-6/RN
                   SET NOTICE 1 DISPLAY
                   SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:58:01 ON 05 SEP 2008
L43              1 S 122426-01-1/RN
                   SET NOTICE 1 DISPLAY
                   SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:58:23 ON 05 SEP 2008
L44              1 S 122725-13-7/RN
                   SET NOTICE 1 DISPLAY
                   SET NOTICE LOGIN DISPLAY
```

```
     FILE 'REGISTRY' ENTERED AT 17:58:40 ON 05 SEP 2008
L45             1 S 112742-08-2/RN
                  SET NOTICE 1 DISPLAY
                  SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:58:59 ON 05 SEP 2008
L46             1 S 521-50-6/RN
                  SET NOTICE 1 DISPLAY
                  SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:59:16 ON 05 SEP 2008
L47             1 S 1919-74-0/RN
                  SET NOTICE 1 DISPLAY
                  SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 17:59:47 ON 05 SEP 2008
L48             1 S 122426-01-1/RN
                  SET NOTICE 1 DISPLAY
                  SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 18:00:20 ON 05 SEP 2008
L49             1 S 22012-97-1/RN
                  SET NOTICE 1 DISPLAY
                  SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 18:00:34 ON 05 SEP 2008
L50             1 S 114398-38-8/RN
                  SET NOTICE 1 DISPLAY
                  SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 18:02:24 ON 05 SEP 2008
L51             1 S 31326-81-5/RN
                  SET NOTICE 1 DISPLAY
                  SET NOTICE LOGIN DISPLAY

     FILE 'CAOLD' ENTERED AT 18:03:02 ON 05 SEP 2008

     FILE 'REGISTRY' ENTERED AT 18:03:41 ON 05 SEP 2008
L52               STRUCTURE UPLOADED
L53             0 S L52
L54             0 S L52 FULL
L55               STRUCTURE UPLOADED
L56             0 S L55
L57             0 S L55 FULL
L58               STRUCTURE UPLOADED
L59             0 S L58
L60             0 S L58 FULL
L61               STRUCTURE UPLOADED
L62             0 S L61
L63               STRUCTURE UPLOADED
L64             1 S L63
L65               STRUCTURE UPLOADED
L66             0 S L65
L67             1 S L65 FULL
```

```
     FILE 'HCAPLUS' ENTERED AT 18:14:44 ON 05 SEP 2008
L68             1 S L67/USES

     FILE 'CAOLD' ENTERED AT 18:14:58 ON 05 SEP 2008
L69             0 S L67

     FILE 'REGISTRY' ENTERED AT 18:15:06 ON 05 SEP 2008
L70               STRUCTURE UPLOADED
L71             0 S L70
L72             1 S L70 FULL

=> s l51 not l72
L73             1 L51 NOT L72

=> file hcaplus
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                180.66    1964.27

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)      SINCE FILE      TOTAL
                                                   ENTRY    SESSION
CA SUBSCRIBER PRICE                                  0.00     -39.20

FILE 'HCAPLUS' ENTERED AT 18:18:29 ON 05 SEP 2008
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FILE COVERS 1907 - 5 Sep 2008  VOL 149 ISS 11
FILE LAST UPDATED: 4 Sep 2008  (20080904/ED)

HCAplus now includes complete International Patent Classification (IPC)
reclassification data for the second quarter of 2008.

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 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> s l73/uses
             1 L73
       7178398 USES/RL
L74          0 L73/USES
                 (L73 (L) USES/RL)
```

```
=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     2.69    1966.96

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00     -39.20

FILE 'REGISTRY' ENTERED AT 18:18:37 ON 05 SEP 2008
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STRUCTURE FILE UPDATES:    4 SEP 2008  HIGHEST RN 1046534-52-4
DICTIONARY FILE UPDATES:   4 SEP 2008  HIGHEST RN 1046534-52-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html
```